



JUK Token White Paper

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The JUK Token represents a groundbreaking innovation at the intersection of blockchain, music, augmented reality, and the metaverse. This document outlines the vision, tokenomics, governance, and real-world integration of JUK across TouchTunes' network of entertainment venues.



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Introduction: The Future of Music Engagement

Music has always been more than just sound—it is connection, culture, and shared experience. But as technology evolves, so too must the way we engage with music. JUK Token is born from this evolution: a decentralized asset designed not only to power digital payments, but to unlock immersive, interactive music experiences across both real-world and virtual environments.

This white paper outlines the technical foundation, governance model, and metaverse integration of JUK Token. By bridging blockchain innovation with the largest jukebox network in North America, JUK is positioned to redefine music commerce. Whether you are an operator, a developer, a music lover, or a crypto enthusiast, this document offers a comprehensive view of how JUK will transform the entertainment economy.

Welcome to the next chapter of decentralized music engagement.

Our Vision

JUK Token exists to redefine music engagement for the modern world — where every venue becomes an immersive digital arena, and every fan, artist, and operator becomes an empowered stakeholder.

We're not just decentralizing payments — we're decentralizing the music experience itself. This is the future of entertainment: open, connected, and owned by the community.



JUK Token White Paper

Abstract

The JUK Token is a transformative digital asset issued on the XRP Ledger (XRPL), enabling seamless, cost-effective payments across the TouchTunes network of 65,000 jukeboxes and 6.2 million mobile app users. By harnessing blockchain technology, AI, and metaverse frameworks, JUK revolutionizes how music is experienced and monetized. It reduces transaction fees, eliminates chargebacks, and fosters a vibrant, cross-platform music economy—extending into the metaverse with immersive virtual jukeboxes and interactive fan experiences. JUK also leverages the Flare Network to enable smart contracts and decentralized functionality.

Executive Summary

JUK Token is a decentralized utility token integrated into the TouchTunes Mobile App and network. Issued on the XRPL at address `rN7nWFdRLLiAp33FkQsnPvP7rB2ZMEQ5TF`, it eliminates high transaction fees, automates payments, and supports new digital experiences. JUK uses the Flare Network to enable advanced smart contract features and DeFi integrations, bridging the XRPL's speed and scalability with Flare's programmable smart contract capabilities. With 65,000 connected TouchTunes jukeboxes and 6.2 million mobile app users, JUK unifies the physical and digital worlds of music by facilitating real-world and virtual interactions, including jukebox control, gifting, NFT-based fan engagement, and immersive AR experiences.

Problem Statement

Traditional fiat-based payment systems in the music and entertainment industry face major challenges:

- High Transaction Fees
- Chargebacks & Fraud
- Limited Global Access



Mission:

JUK powers real-world and virtual music engagement with decentralized, transparent, and interactive experiences.

Solution Overview

JUK Token offers a modern, decentralized solution:

- XRPL Integration
 - Flare Network Integration
 - AI Personalization
 - Metaverse Integration
 - Augmented Reality
 - Global Utility
-

Market Opportunity

As of 2025, approximately 65 million U.S. adults are digital asset holders, primarily owning or using cryptocurrencies [1]. This demographic significantly overlaps with the typical customer base of bars and restaurants, particularly in the age group of 21-34, which is the prime demographic for the bar and nightclub industry, accounting for 31.1% of its revenue [2]. Digital asset holders are predominantly younger adults, aged 18-45, aligning closely with bar and restaurant patrons [3]. This overlap presents a unique opportunity for JUK to bridge the gap between digital asset holders and traditional entertainment venues, leveraging the TouchTunes network of 65,000 jukeboxes and 6.2 million mobile app users to create a seamless payment experience.

The growing acceptance of cryptocurrency payments in the restaurant industry further supports JUK's market potential. For instance, Chipotle began accepting Bitcoin and other cryptocurrencies in June 2022, offering a 10% discount for crypto payments [4]. Similarly, Starbucks allows customers to use Bitcoin through the Bakkt digital wallet [5]. These examples demonstrate the feasibility and increasing trend of digital asset payments in entertainment venues, paving the way for JUK Tokens to become a standard payment method within the TouchTunes ecosystem. By capitalizing on this trend, JUK can position itself as a pioneer in integrating blockchain technology with traditional entertainment, enhancing user experience and creating new revenue streams.

Citations:

[1] Security.org, "2025 Cryptocurrency Adoption and Consumer Sentiment Report," 2025, <https://www.security.org/digital-security/cryptocurrency-annual-consumer-report/>

[2] Small Business Development Center, "Bar Business & Nightclub - Small Business Snapshot



Reports," <https://www.sbdcnnet.org/small-business-research-reports/bar-business-nightclub/>

[3] Decoding the cryptocurrency user: An analysis of demographics and sentiments, PMC,

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10907656/>

4] EMERGING, "The Rising Use of Cryptocurrency in Restaurants,"

<https://emerging.com/insights/digital-currencies/the-rising-use-of-cryptocurrency-in-restaurants>

[5] NBC News, "Bitcoin by bitcoin, restaurants start to accept cryptocurrencies,"

<https://www.nbcnews.com/business/bitcoin-bitcoin-restaurants-start-accept-cryptocurrencies-rca21211>

Flare Network Integration

The XRPL provides fast and efficient payment infrastructure for JUK transactions. However, XRPL does not natively support smart contracts. To enable programmable features, JUK leverages the Flare Network:

- Smart Contract Enablement via EVM compatibility
- Federated Bridges for XRPL ↔ Flare token movement
- Automated Revenue Sharing
- NFT Integration
- Community Governance

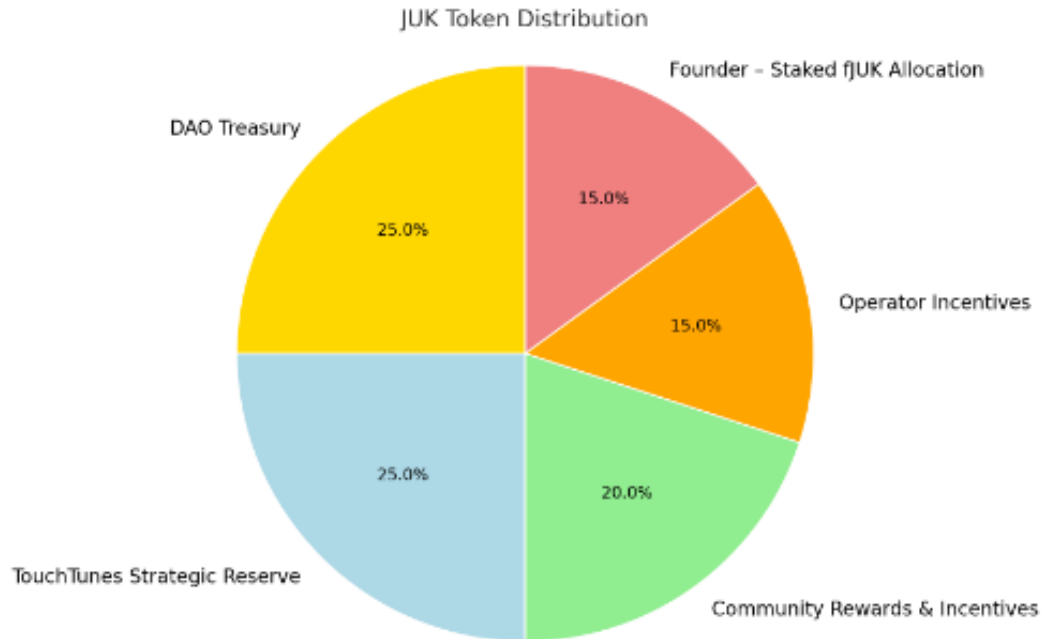


JUK Token Distribution Chart

Category	Allocation	Purpose
DAO Treasury	25%	Distributed Day 0. Continuously replenished with 0.25–0.50% of all JUK token spending, adjustable via DAO governance to match ecosystem needs. Funds community grants, open-source developer bounties, smart contract audits, and DAO transparency tools. Administers DAO-approved promotions and operator/user incentives (executed by TouchTunes). Subject to quarterly DAO votes based on KPIs and milestone reporting. Includes a soft cap (e.g., 10 million JUK) to ensure sustainable reserves.
TouchTunes Strategic Reserve	25%	Distributed Day 0: 55% staked in fJUK for 36 months. 45% fully accessible on Day 0 for promotional and strategic use. Enables campaigns, operator rewards, governance participation, and validator staking on Flare Network to accelerate adoption. Also funds XR/metaverse onboarding and live events to drive user growth and engagement.
Community Rewards & Incentives	20%	Distributed Day 0 to mobile app users by TouchTunes without requiring user sign-up. Community Rewards are held in a multisig wallet designated for TouchTunes, with Doltech serving as signer. TouchTunes will be solely responsible for determining distribution methods, timing, and eligibility criteria for mobile user JUK rewards. Future user incentives tied to jukebox and dartboard usage may also be administered by TouchTunes using returned JUK tokens. Doltech will not directly interface with end users.
Operator Incentives	15%	Provides venue-level engagement through bonus credit pools, jukebox upgrade subsidies, performance bonuses, hardware incentives, and unlockable rewards. Operator allocations require 20% JUK self-staking (fJUK) to unlock full access. The required staking period is for 36 months and also allows for Governance participation, yield generation, and long term commitment.
Founder – Staked fJUK Allocation	15%	Distributed Day 0; 100% staked in fJUK vest linear for 36 months from launch. Locked under public terms for governance alignment, yield generation, and long-term commitment.



JUK Token Distribution



TouchTunes Staking Commitment

TouchTunes will stake **55% of its 25% Strategic Reserve allocation** on the Flare Network. This stake demonstrates long-term alignment, enables participation in DAO governance, and earns network rewards through Flare's native staking mechanisms. The remaining 45% of the allocation will be used for operator onboarding programs, promotional campaigns, and ecosystem development.

Founder Staking Terms (fJUK)

- The **15 % allocation to the founder** is held in a **time-locked wallet** and staked on the Flare



Network as **fJUK**. Staking rewards generated through Flare serve as the founder's sole compensation, aligning long-term incentives with ecosystem growth. These tokens are **non-transferable during the lock-up** and **vest linearly over 36 months**. All staking activity is recorded in a **publicly viewable wallet** to reinforce community trust.

****TouchTunes Staked Reserve Terms**

- The **staked portion—55 % of TouchTunes' 25 % Strategic Reserve allocation**—is held in a **time-locked wallet** on the Flare Network, following the same **36-month linear vesting** schedule as the founder's tokens. During the lock-up, these tokens are **non-transferable**. All staking transactions are publicly viewable, underscoring TouchTunes' long-term commitment. Staking rewards may be **reinvested in ecosystem growth**, used for **DAO governance participation**, or applied to **operator and platform incentives**.

Post-Vesting Access

- After the 36-month vesting period, the founder gains full access to the **15 million JUK principal** (still visible via public wallet tracking). To protect decentralization, **DAO voting power for these tokens may be cap-limited or subject to community-defined oversight**. This cap applies only to governance voting—not to personal use, sale, or transfer. The founder may unstake, restake, sell, or reallocate tokens post-vesting, with ongoing transparency encouraged. TouchTunes tokens follow identical transparency and usage principles.

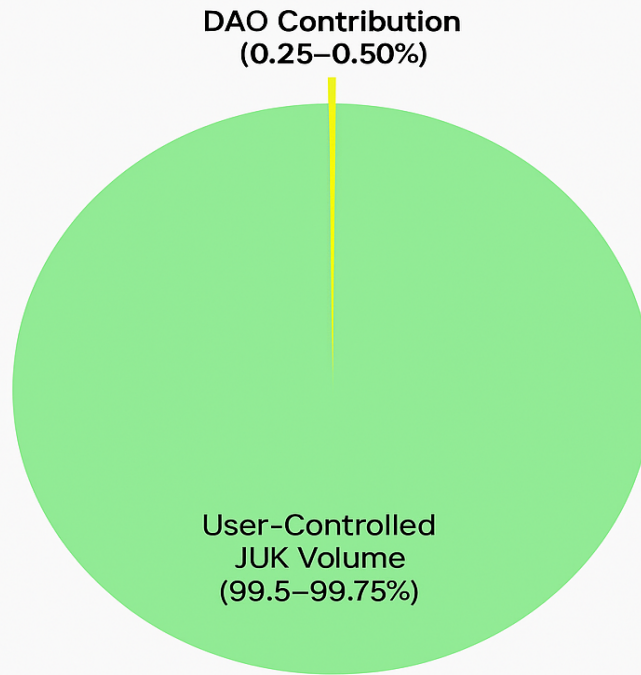
TouchTunes Post-Vesting Use Policy

Upon completion of the vesting schedule, TouchTunes may use its unlocked JUK tokens for strategic growth and platform development. These uses may include DAO participation, ecosystem reinvestment, and operator incentive funding. To promote responsible management, any substantial token movement (e.g., large-volume sales, transfers, or swaps) may be subject to DAO oversight mechanisms. Additionally, TouchTunes agrees to maintain transparent public wallet tracking and to avoid actions that could disrupt ecosystem balance or erode community trust. Governance limitations, similar to those applied to the founder's tokens, may be proposed by the DAO to ensure decentralized governance remains intact.

DAO Governance and Treasury

A key feature of the JUK token economy is a protocol-level contribution in which **0.25-0.50% of all JUK transaction volume is automatically redirected to the DAO Treasury**. This ensures that as platform usage grows, so does the DAO's ability to fund development, community rewards, audits, and strategic partnerships. This mechanism aligns ecosystem growth with treasury sustainability, allowing the DAO to remain well-capitalized and community-driven.

JUK Transaction Flow to DAO Treasury



DAO Governance and Treasury

The DAO Treasury receives 25% of the total supply and is responsible for funding developer grants, ecosystem bounties, marketing campaigns, legal and compliance services, and long-term sustainability. Governance proposals will be initiated via a voting mechanism where token holders can influence treasury allocations, platform upgrades, and DAO priorities.

JUK DAO: Decentralized Governance for the Music Economy

- The JUK DAO empowers the community to steer the direction of the JUK Token ecosystem by voting on proposals, funding innovation, and managing a transparent treasury. This decentralized governance model ensures long-term sustainability, user trust, and alignment with global Web3 standards.



JUK DAO GOVERNANCE STRUCTURE

To ensure long-term decentralization, transparency, and regulatory compliance, the JUK DAO follows a phased decentralization roadmap. At launch, the DAO Treasury (25% of supply) is secured by a 3-of-5 multisig wallet including Doltech, TouchTunes, and neutral parties. Community proposals are initiated via Snapshot, with treasury disbursement guided by DAO votes and multisig approval.

Over time, control of the treasury, protocol upgrades, validator incentives, and staking policy will shift to smart contracts and elected DAO participants. By month 36, the DAO will hold full authority over the JUK ecosystem, with all funds and decisions governed transparently on-chain.

This structure aligns with legal best practices while preserving early stability. We encourage early participation from token holders to propose initiatives and help shape the future of music and metaverse interaction through JUK.

In Phase 2 of the roadmap, two DAO members will be elected through Snapshot community voting to join the multisig, further decentralizing control ahead of the full protocol transition.



JUK DAO LAUNCH PLAN

Overview:

The JUK DAO launch is structured in three phases to ensure a secure, community-driven, and transparent transition from founder-led setup to full decentralized governance. Each phase introduces key responsibilities, expanded voting rights, and treasury control.

PHASE 1: LAUNCH (Months 0–6)

- A 3-of-5 Gnosis Safe multisig treasury is established with signers from Doltech, TouchTunes, and neutral third parties.
- Snapshot voting is enabled for all JUK holders. Proposal threshold: 100,000 JUK. Quorum: 5% of circulating supply.
- Treasury disbursement is manual via multisig. Monthly reports published publicly.
- Community may vote on basic proposals: marketing, ecosystem bounties, validator incentives.

PHASE 2: TRANSITION (Months 6–18)

- 2 DAO-elected members are added to the multisig (5-of-7 configuration).
- Flare-integrated smart contracts begin handling proposal execution (vote → action automation). By Month 18, all successful Snapshot proposals triggering financial disbursement will be executed via Flare smart contract automation unless paused by DAO veto.
- Proposal types expand to include policy changes, platform upgrades, treasury shifts, and grant distributions.

PHASE 3: FULL DAO CONTROL (Months 18–36)

- Multisig roles from Doltech and TouchTunes sunset. Control shifts to elected DAO members.
- Treasury and platform operations are governed entirely on-chain.
- DAO defines and manages all aspects of JUK evolution including staking mechanics, reward distributions, validator onboarding, and external partnerships.

Snapshot + Gnosis Safe Configuration:

Snapshot Voting: - 1 JUK = 1 Vote - Quorum: 5% of circulating supply - Voting Duration: 7 days - Proposal Threshold: 100,000 JUK
Gnosis Safe Treasury: - Ethereum + Flare-compatible multisig with public audit trail - Wallet address published at dao.juktoken.com - Backup protocols: 2 cold wallets + 1 emergency signer - Emergency rotation possible via DAO vote if signers are inactive

JUK DAO Governance Lifecycle (Months 0-36)



- Gnosis Safe (3-of-5) multisig established
- Snapshot voting enabled (100k JUK threshold)
- Manual treasury disbursement with reports

- DAO-elected members join (5-of-7 multisig)
- Smart contract automation begins (Flare)
- Expanded proposal types (policy, upgrades)

- Doltech & TouchTunes multisig roles sunset
 - All treasury ops handled on-chain
- DAO governs staking, validators, treasury

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DAO Service Roles & Staggered Term Limits

To ensure reliable and decentralized governance, the JUK DAO assigns key operational responsibilities to elected service providers. These roles are term-limited, revocable by DAO vote, and subject to future staggered elections to maintain continuity while promoting accountability.

Initial 36-Month Terms:

All DAO-elected service providers will serve an initial 36-month term to promote operational stability, long-term planning, and deep ecosystem alignment during the foundational launch period.

Core DAO-Elected Roles:

- Treasury Operator – 36-month term, manages treasury disbursements and funding execution.
- Technical Steward – 36-month term, handles smart contract deployment, audits, and upgrades.
- Legal & Compliance Admin – 36-month term, responsible for regulatory filings and compliance.
- Ecosystem Grants Manager – 36-month term, administers developer bounties and milestone verification.

Retention of Experienced Contributors:

DAO service providers may be re-elected indefinitely based on performance and community support. Term limits are designed not to remove experienced contributors, but to enable structured community reviews, increase transparency, and avoid entrenched control. Re-election ensures continuity without compromising governance.

Transition to Staggered Elections:

After Month 36, the DAO will implement staggered 12–18 month terms across service roles. This ensures stable transitions, knowledge continuity, and shared responsibility.

Early Revocation:

DAO members may initiate early removal proposals with a 10% proposal threshold and 5% quorum if a service provider becomes inactive or misaligned with DAO objectives.



DAO Service Providers and Future Role Expansion

To manage operational execution, the JUK DAO elects specific service providers, each with defined roles and community-approved mandates:

- Treasury Operator – Executes funding disbursements and manages the treasury’s operational workflows.
- Technical Steward – Oversees smart contract deployment, upgrades, and security audits.
- Legal & Compliance Admin – Handles regulatory filings, risk reviews, and legal oversight.
- Ecosystem Grants Manager – Verifies milestone completion and administers developer and community grants.

These roles begin with an initial 36-month term to ensure stability and alignment during JUK’s early growth. Term limits serve as checkpoints—not forced turnover—allowing trusted contributors to be re-elected indefinitely or removed early by DAO vote if necessary.

Future Role Expansion: As the ecosystem grows, the DAO may introduce, modify, or retire roles through on-chain governance. Potential future roles may include Community Strategist, Security Lead, Protocol Analyst, and Partnerships Liaison to support community engagement, system integrity, and strategic partnerships.

This modular structure ensures JUK remains agile, scalable, and community-driven.



GNOSIS SAFE (Ethereum & Flare-linked)

Purpose of This Section:

To explain how DAO-managed funds are securely stored, transparently managed, and reliably accessed using a multi-signature architecture integrated with the Flare and Ethereum ecosystems. This setup supports both operational security and automated execution of DAO-approved activities.

What It Covers:

Multisig Transparency:

The DAO Treasury is held in a 3-of-5 Gnosis Safe, where transactions require approval from 3 out of 5 designated signers. These signers include: Doltech representative, TouchTunes representative, Independent security advisor, Legal observer, and Technical lead (smart contract engineer). The treasury wallet address will be publicly visible on dao.juktoken.com, enabling full community oversight of every transaction. Monthly reports will also be posted on-chain and off-chain. Treasury addresses and signer activity logs will be available via public explorer or linked from dao.juktoken.com.

Flare Smart Contract Triggers:

Flare integration allows the DAO to link treasury activity directly to on-chain governance decisions. Funds can be disbursed automatically when a Snapshot proposal passes. Rewards, grants, or staking incentives can be released based on predefined conditions using Flare's native EVM-compatible logic. Events like "proposal accepted" or "validator slashed" can trigger automated flows with zero human intervention, reducing delay and improving trust.

Backup Protocols for Disaster Recovery:

To ensure resilience in case of compromised keys or signer unavailability, the system includes: 2 cold wallets (air-gapped storage) that can be activated by DAO vote in emergencies, 1 backup signer designated solely for system restoration purposes, and automatic rotation protocols should quorum become unstable. Proposals are triggered if more than 2 signers are inactive for 30 days.

Why This Matters:

In Web3 environments, treasury safety and transparency are essential to legitimacy and long-term trust. By combining Gnosis Safe, Snapshot voting, and Flare smart contracts, JUK DAO ensures that no single actor can move or manipulate community assets—and that all operations follow clearly defined governance procedures.



Proposal Threshold Justification: 100,000 JUK

Why 100,000 JUK Is Optimal:

Setting the proposal threshold at 100,000 JUK (0.1% of the total supply) offers a powerful balance between openness and governance integrity. This amount ensures that only meaningful stakeholders can initiate proposals while allowing motivated community members to participate early.

Encourages Early Participation:

Lowering the barrier to propose promotes decentralized governance and helps activate token holders to engage with the DAO. Early contributors and aligned partners can help shape direction without needing excessive capital.

Avoids Centralization Optics:

A threshold set at 100 million JUK would concentrate governance in a single entity or treasury. Keeping the threshold at 100,000 JUK helps avoid regulatory concerns around over-centralization and builds trust with the community.

Enables Flexibility and Evolution:

Starting with a lower threshold lets the DAO iterate. If proposal spam ever becomes an issue, the community can vote to raise the threshold. Governance parameters should evolve with adoption and network maturity.

Balances Legal Considerations:

While remaining compliant, the 100,000 JUK threshold avoids appearing exclusionary. It provides structure without overreach, aligning with decentralization frameworks recognized by regulators.



Purpose of the DAO

JUK DAO governs the growth and evolution of the JUK Token and its integration within the TouchTunes platform and other music-focused environments. It enables:

- Community-led decision-making
- Ecosystem development and grant funding
- Incentive allocation and staking policy management
- Strategic expansion into the metaverse and real-world venues

Governance Token Utility

The JUK Token acts as the governance token of the DAO. Token holders may:

- Submit and vote on proposals
- Participate in staking and yield-generating activities
- Help determine key roadmap decisions
- Receive DAO rewards for active governance participation

Voting and Proposal Mechanics

All major decisions are made through community vote, with proposals passing if they meet predefined quorum and majority thresholds.

Voting Design:

- 1 JUK = 1 Vote (subject to future capped voting mechanisms)
- Minimum quorum: 5% of circulating supply
- Voting duration: 7 days
- Voting occurs via Snapshot with Flare smart contracts for execution

Proposal Types Include:

- Developer grant disbursements
- Ecosystem upgrades or integrations
- Marketing and awareness campaigns
- Treasury and token allocation shifts

DAO Treasury

The DAO treasury is managed by smart contracts and transparent on-chain accounting. It will initially be funded with **25% of the total JUK token supply**. Treasury funds support:

- Community-submitted proposals



JUK Token DAO Treasury Overview

Distributed Day 0: The Distributed Day 0 Treasury is a continuously replenished reserve funded by 0.25–0.5% of all JUK token spending. This replenishment rate is dynamically adjustable by DAO governance and is designed to align with actual ecosystem needs and funding utilization over time.

Note: All user-facing interactions and promotions are administered solely by TouchTunes. Doltech does not interface with end users, although it remains a multisig signer for DAO treasury operations.

Purpose and Scope:

- **Community Grants:** Funding to support venue operators, artists, and local music advocates through proposal-based initiatives.
- **Open-Source Developer Bounties:** Incentives for community-contributed code, integrations, AR filters, plugins, and XR/Web3 music experiences.
- **Smart Contract Audits:** Third-party code audits to ensure security and integrity of JUK-related contracts.
- **Governance Transparency Tools:** Tools for monitoring DAO votes, wallet behavior, and treasury disbursements to enhance integrity.
- **DAO-Led Promotions:** Event-based marketing campaigns approved through governance.
- **Operator and Mobile App User Incentives:** Administered by TouchTunes under DAO-approved funding.

Treasury Dynamics: The treasury is governed by DAO token-holder voting and includes:

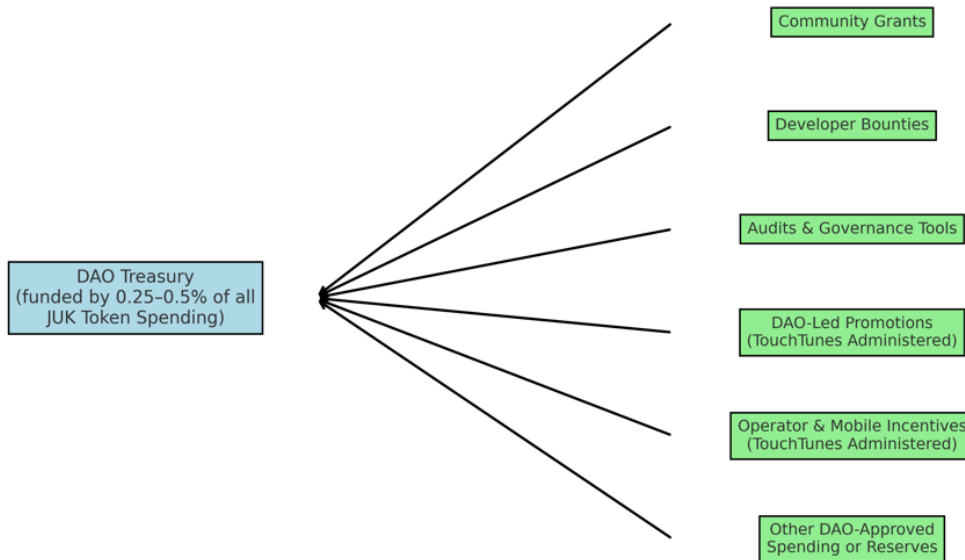
- **Dynamic Rate Adjustment:** DAO can pause or reduce funding if underutilized.
- **Treasury Cap:** A soft cap (e.g., 10 million JUK) with DAO-adjustable parameters.

Fund Governance: A portion of treasury grants may be used for operator/mobile incentives based on engagement KPIs. All spending is subject to quarterly DAO votes, with milestones, KPIs, and reporting required.





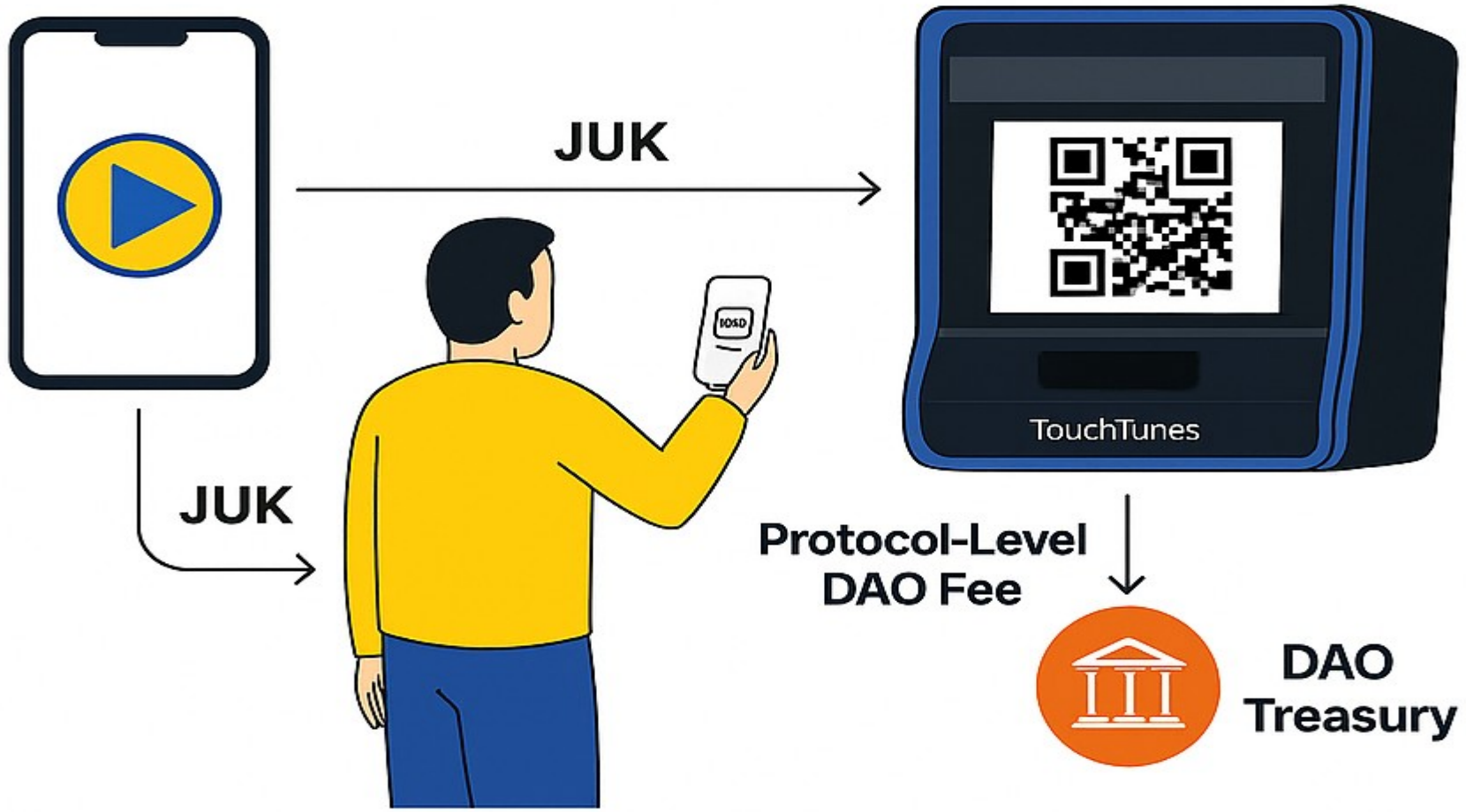
DAO Treasury Flow Overview




Long-Term Utility: The treasury is designed to be a productive, agile engine for DAO growth—not just a static reserve.

The 0.25–0.5% DAO Treasury capture occurs at the protocol level and is not deducted from TouchTunes' revenue share or operator fees. Instead, it functions as a small protocol-level reinvestment, governed transparently by DAO stakeholders, including TouchTunes. These funds help support platform-wide growth, developer incentives, and operator subsidies, including those that TouchTunes may administer directly.


Using JUK with a QR Code




Using JUK in the Mobile App

Get credits 

Get credits [Bonus history](#) [Help](#)

12 credits + 1 FREE	13 credits	\$7
25 credits + 5 FREE	30 credits	\$15
 70 credits + 30 FREE	100 credits	\$30 BEST VALUE

More ways to get credits

 **Refer a friend**

JUK is a utility token for jukebox interaction only



AI & Voice Integration

- Integration with voice assistants and AI algorithms to enable smart song suggestions, voice-activated selections, or ambient auto-playlists, all powered by JUK interactions.

Virtual Jukebox Integration

A **virtual jukebox** is a digital replica of a physical jukebox that operates inside virtual environments such as:

- Metaverse platforms (Decentraland, Spatial, Roblox)
- AR/VR apps
- 3D web interfaces

These digital jukeboxes allow users to:

- Spend JUK tokens to play songs in virtual lounges, clubs, or events
- Interact socially with others through shared playlists or group listening
- Unlock branded, exclusive experiences or NFT music content
- Earn JUK through gamified challenges, POAP events, or social interaction

Virtual jukeboxes enable new forms of music monetization and fan engagement, extending the JUK ecosystem into global digital communities without physical hardware requirements.

Flare as a Metaverse & Smart Contract Layer

Flare allows you to:

- Build **custom virtual jukeboxes** in a 2D or 3D web interface (hosted or app-based)
- Integrate **AR/VR frameworks** (like Unity, Unreal, or WebXR) using Flare's native smart contracts
- Use **FAssets and state connectors** to bring in data (e.g., music history, song plays, geolocation)
- Mint NFTs, assign token rewards, or create DAO-linked access systems

Third-Party Integration

- Developers and venues may use JUK to unlock features, license music layers, or build branded user experiences.



- The Developer Ecosystem Fund will issue grants to teams building on the JUK + TouchTunes stack.

Compliance & Non-Speculative Design

- JUK is classified as a utility token used for access, coordination, and rewards.
 - Founders and TouchTunes reserve tokens are locked and staked—not used for speculation.
 - JUK is not marketed or designed as an investment product.
 - TouchTunes reserve tokens are designated for operational use, including staking, rewards, and ecosystem development. A portion of this reserve is staked under terms consistent with the founder’s lock-up schedule. These tokens are not intended for speculation or resale and are governed under DAO oversight and compliance review.
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JUK in the Metaverse

JUK Token bridges physical and digital music experiences:

- Virtual Jukeboxes
- Avatar Payments
- NFT Integration
- Virtual Concert Tickets
- Community Governance
- Operator Benefits

Metaverse Integration & AR Social Layer

The Metaverse Experience

The JUK Token unlocks immersive, digital-first music experiences that extend into the metaverse. Users can explore virtual lounges, engage with digital jukeboxes, and collect fan NFTs tied to real-world music events. These environments provide new opportunities for fan interaction, community-building, and cross-platform content distribution across XRPL and Flare.

Augmented Reality Social Layer — JUK Beyond the Bar

As the centerpiece of the JUK + TouchTunes Web3 transformation, the Augmented Reality (AR) Social Layer redefines how people experience live venues. By subscribing to the TouchTunes



AR platform, users can virtually enter real bars and lounges using AR glasses—appearing in real time to on-site guests who are also wearing AR glasses.

This bi-directional AR interaction is powered by the JUK Token and enables a social experience like never before:

- **Remotely visit** TouchTunes-partnered venues from anywhere in the world: Explore bars, lounges, or live music events in real time via an immersive first-person perspective, with AR-glass compatibility enabling full spatial awareness.
- **Appear and interact** with on-site guests wearing AR glasses: Virtual visitors are represented by avatars or styled image snapshots and can walk, wave, talk, and even dance with real guests—all synchronized through spatial mapping.
- **Play music** on the TouchTunes jukebox using JUK tokens: Users can select and queue songs from the venue’s actual playlist, remotely influencing the vibe of the room, with real-time audio playback synced to the bar.
- **Buy drinks, food, or gifts** for bar guests using JUK: Through the interface, remote users can view available menu items and send drink or food orders directly to a physical guest's table, with JUK tokens deducted automatically.
- **Make purchases with JUK** for a future in-person visit: Visitors planning a trip can pre-order meals, drinks, or experiences. These can be redeemed with a scannable AR code upon arrival, creating seamless loyalty and reward loops.
- **Collect POAPs, leave digital autographs**, or unlock location-based collectibles: Remote attendees earn proof-of-attendance tokens for visits, leave signatures or emojis on digital venue walls, and collect exclusive NFTs tied to specific songs or moments.

To protect the integrity of the venue and maintain community safety, **remote guests are represented by avatars or image-based digital twins**. Upon setup, users can take a snapshot of themselves (clothed and styled) to use as their default AR projection. All AR appearances are subject to an **AI-driven visual moderation filter**, which prevents nudity, obscenity, or disruptive visuals from being shown inside the venue. Venue owners can additionally flag or mute remote avatars in real time.

**Subscribe to
TouchTunes AR**

SUBSCRIPTION

100 JUK

/ month

billed monthly

Subscribe

Balance: 250 JUK

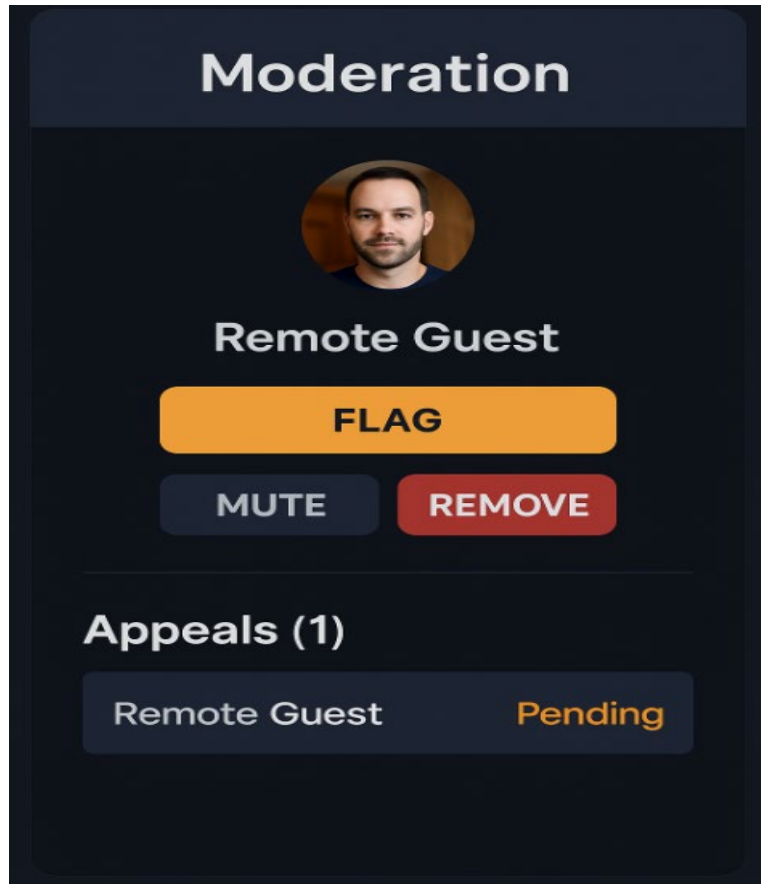
Subscription portal

AR interface preview

AUGMENTED REALITY SOCIAL LAYER

JUK BEYOND THE BAR

- Remotely visit TouchTunes locations
- Appear to on-site guests wearing AR glasses
- Play music on the jukebox with JUK tokens
- Buy drinks or food for bar patrons



What is Spatial Mapping?

Spatial mapping refers to the process of digitally scanning and understanding a physical environment in three dimensions, allowing augmented reality systems to accurately place and anchor virtual objects—and people—within that space. In the JUK AR experience, spatial mapping enables:

- Remote guests to appear at specific tables, walkways, or performance areas within a real venue
- Natural movement and interaction between avatars and on-site guests, with proper scaling, direction, and audio orientation
- Anchoring of digital content such as POAPs, menus, and holographic performers to real-world coordinates

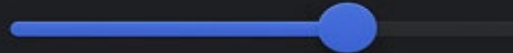
This technology allows the virtual and physical worlds to blend seamlessly, making the interaction feel authentic and location-aware.

Spatial Audio

Voice Chat



Jukebox



Hear nearby on-site guests with spatial audio

Bluetooth

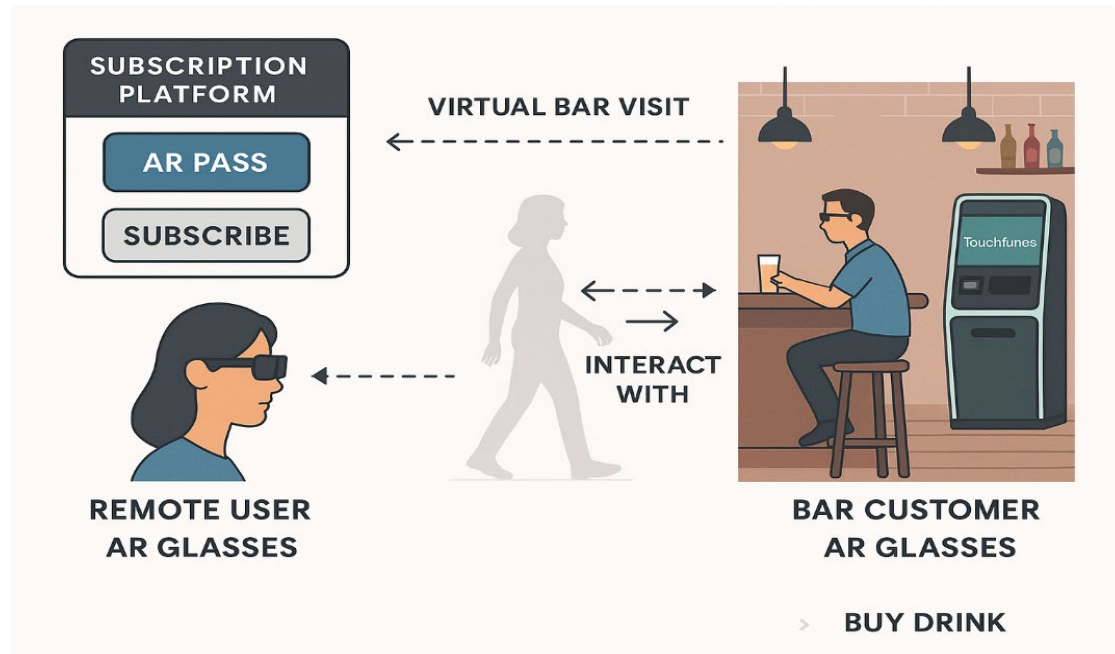


This creates a dual-revenue model for bars and restaurants:

- **On-site guests** continue spending normally with JUK
- **Virtual patrons** pay subscription fees, buy drinks, and interact using JUK

The subscription model creates predictable revenue, while the token-based actions (play music, buy drink, buy for later) increase the velocity and utility of JUK.

Monetization Model



Feature	Paid In	Benefit
Monthly AR Pass	JUK / USDC	Ongoing access to virtual venues
One-Time Entry	JUK	Pay-per-visit access to a specific venue
Song Requests	JUK	Remote jukebox control
Gifting Drinks or Food	JUK	Send gifts to real people at the venue
Future Purchase Scheduling	JUK	Buy items now, redeem when visiting in person

Technical Overview: How It Works

The following section dives deeper into the integrated systems that power the JUK + TouchTunes AR experience. These systems create a seamless, secure, and immersive interaction between remote and on-site users through advanced identity verification, real-time audio communication, and blockchain-based commerce logic. Each component of the AR architecture has been carefully designed to maintain realism, accountability, and monetization potential while enhancing user agency through intuitive controls.

Identity Verification (KYC)

To ensure safety, compliance, and accountability, all users must complete a Know Your Customer (KYC) process prior to subscribing to TouchTunes AR:



- **KYC Verification:** Upon creating an account, users are required to submit a government-issued ID and facial verification using secure third-party services.
- **Age and Location Checks:** KYC also verifies that users meet the legal drinking age requirements for their jurisdiction and prevents usage from restricted regions.
- **Subscription Lock-in:** Only verified users can access AR features such as avatar setup, voice chat, jukebox control, and gifting. KYC status is clearly indicated in the user profile.
- **Privacy Protection:** All KYC data is encrypted and stored in compliance with international privacy standards (e.g., GDPR, CCPA).

Audio Communication System

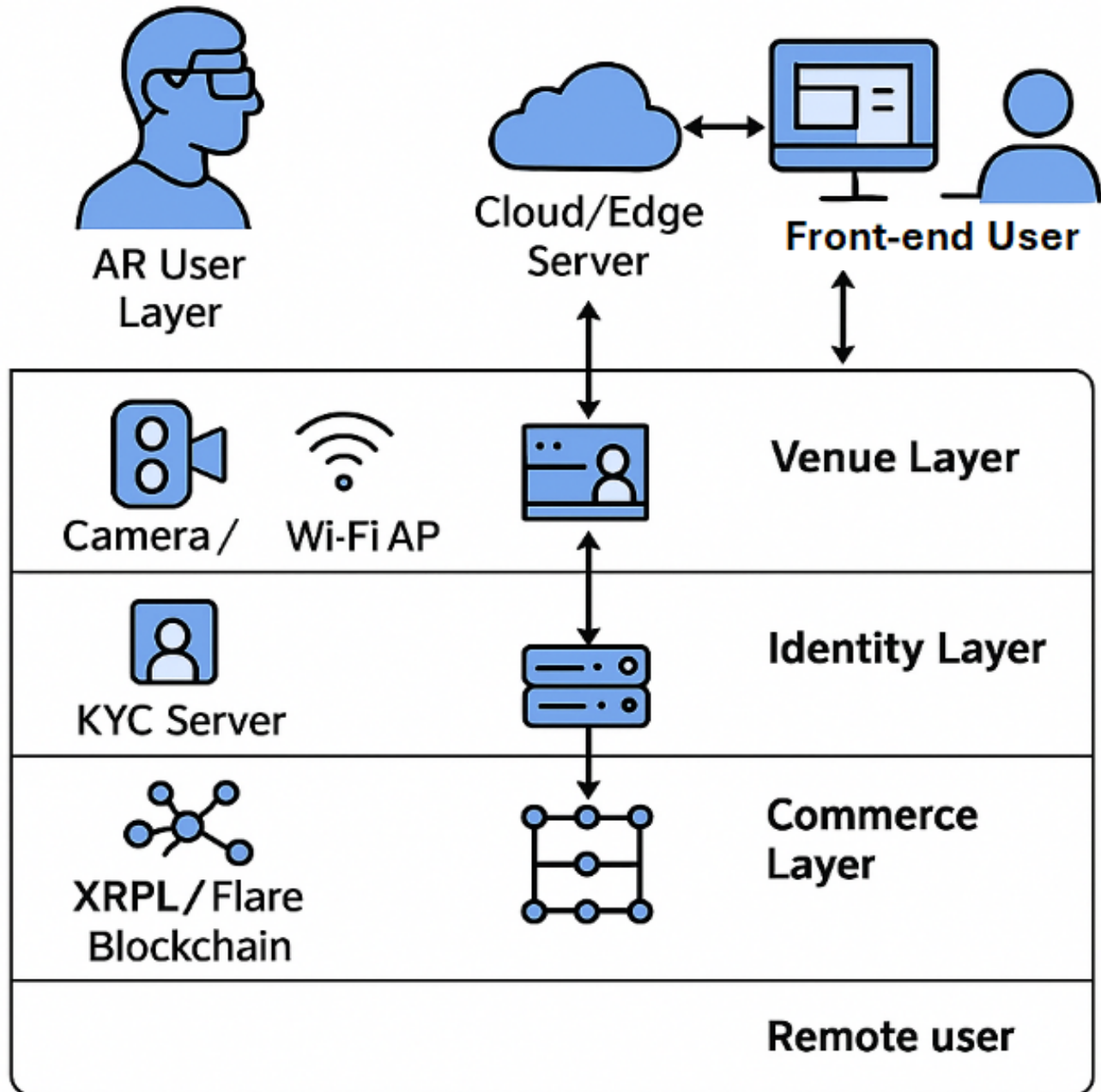
To enable seamless interaction between remote guests and on-site bar patrons, the TouchTunes AR platform integrates spatial audio and real-time audio streaming features:

- **Hearing Physical Guests:** Physical guests wearing AR glasses are equipped with Bluetooth-connected earbuds or bone conduction headphones with built-in microphones. These devices capture real-time voice input and send it to remote users, maintaining spatial orientation (e.g., volume and direction) based on where the sound originates in the venue.
- **Remote Audio Playback:** Remote guests hear the conversation through their own AR-compatible audio output, such as earbuds or VR headsets, with spatial audio positioning that mimics the environment.
- **Jukebox Music Playback:** The TouchTunes jukebox is synced with the AR system to provide a clean, digital audio stream directly to remote users. This bypasses ambient noise and transmits the music exactly as heard in the venue, with optional spatial effects for immersion.
- **Volume Controls:** Both remote and local users have volume balancing tools that let them prioritize conversation, music, or ambient effects according to their preference.

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1. **AR User Layer:** Users wearing AR glasses log into their TouchTunes AR accounts linked to JUK wallets.
 2. **Venue Layer:** Participating venues equip staff or guests with AR-ready tablets or glasses, powered by the TouchTunes app.
 3. **Identity Layer:** Verified avatars and spatial anchors connect virtual visitors to the real-world venue layout.
 4. **Commerce Layer:** JUK Tokens are used for real-time interactions—pay per play, digital purchases, tipping, etc.
 5. **Smart Contracts:** Built on Flare and XRPL, enabling automation of voting, spending limits, and reward triggers.
 6. **Moderation Filter:** AI moderation ensures avatars comply with visual guidelines and community standards.
-

AR Architecture Layer Diagram & Data Flow

AR ARCHITECTURE LAYER DIAGRAM





Creative Expression & Avatar Customization

To balance creative freedom with verified accountability, remote guests who have completed KYC may personalize their AR appearance and voice within defined boundaries:

- **Custom Avatars:** Verified users may select from an extensive library of avatars, including science fiction, fantasy, pop culture, or branded characters. Licensing partnerships or open IP guidelines may apply to enable use of recognizable characters (e.g., space operas or iconic sci-fi series).
- **Voice Modulation:** Users can activate voice filters to match their avatar or preferred persona, from robotic tones to stylized effects. Voice modulation is applied client-side, with toggles available in the user control panel.
- **KYC Enforcement:** All creative expressions are permitted only after identity is verified and locked through the KYC system. Behind every creative avatar is a real-world verified identity, providing accountability while enabling expressive freedom.
- **Moderation for Custom Content:** AI moderation tools review both visual and audio outputs. Characters or sounds that promote obscenity, hate, or impersonation without authorization are flagged or filtered automatically.

Moderation Tools & Behavior Policy

To ensure a respectful and safe AR experience, all users must adhere to a published **Code of Conduct**, which prohibits nudity, hate speech, harassment, impersonation, and disruptive behavior. Moderation features include:

- **Real-time avatar flagging** by venue staff or users
- **Immediate mute and visibility toggle** for flagged avatars
- **AI-powered avatar scan** upon setup to detect inappropriate content
- **Cooldown penalties** for behavior violations (temporary bans, payment freezes)
- **3-strike policy** for repeated violations resulting in permanent suspension

Appeal & Penalty System

- **Flagged users** receive a notification with the reason and timestamp of the violation.
- **Users may appeal** via the in-app support portal, submitting their case to the DAO review team.
- **DAO review panel** (community-elected) votes on escalated or repeated disputes.
- **Successful appeals** restore access and reset violations.
- **Unsuccessful appeals** result in extended suspension and notification to all partner venues.



Expansion Opportunities

- **Venue Licensing:** Participating venues can opt in to TouchTunes AR by paying a monthly licensing fee. This includes access to the AR dashboard, spatial mapping integration, moderation tools, and priority listing within the AR venue directory. Venues can also unlock revenue-share tiers based on monthly AR engagement and token activity.
- **Artist Engagement:** Artists and DJs can host exclusive AR-only performances or meet-and-greet sessions with virtual and on-site attendees. This creates new monetization streams through token-gated access, tips, or collectible content drops, while enhancing artist exposure through immersive branded environments.
- **POAPs and NFTs:** Users earn Proof-of-Attendance Protocol (POAP) badges for AR visits, song plays, interactions, or event attendance. These can be collected, traded, or redeemed for exclusive experiences. NFTs tied to song moments or artist collaborations offer fans a way to build their identity and loyalty history within the JUK ecosystem.
- **White-labeling:** Bars, lounges, and nightclubs can fully customize their TouchTunes AR environment. This includes themed avatars, branded POAPs, special loyalty rewards, or custom interfaces—all powered by JUK. Businesses can choose from pre-designed templates or work with developers to build immersive, brand-specific experiences tailored to their audience.

This feature positions JUK as the first music token in the world to **bridge metaverse, real-world interaction, and AR commerce**. It's not a theoretical use case—this platform is deployable across TouchTunes' existing network of 65,000 jukeboxes and millions of app users.

Accounting for Jukebox Transactions

Each jukebox is linked to a blockchain wallet with a unique ID. Payments are routed through XRPL, while Flare smart contracts manage automated revenue sharing. A centralized dashboard provides immutable financial reporting.

Cost Reduction Benefits

- No Chargebacks
- Smart Contracts
- No Bank Fees
- AI Optimization
- Global Accessibility



Legal Considerations

JUK is classified as a utility token and not a security based on:

- Functional Ecosystem Use
- No Profit Expectation from Others' Efforts
- No Ownership or Dividend Rights
- Decentralized Governance
- Regulatory Alignment

Founder & TouchTunes JUK Token Holding & Compliance

TouchTunes and the founder may hold token allocations provided they are clearly designated for utility purposes such as operational incentives, staking, or governance—not for speculative investment.

- **TouchTunes staking 55%** of its token reserve, demonstrating alignment with the DAO's long-term goals and community trust. The remaining portion is allocated for platform operations, ecosystem integrations, and strategic incentives under DAO oversight.
- The **founder** has committed to **staking 100% of their 15%** allocation under the same lock-up schedule and reward terms, reinforcing regulatory compliance and sustained network growth.

These staked tokens are locked and earn compensation through Flare Network rewards—not through resale or market speculation. This model is structured to pass the Howey Test and align with global regulatory frameworks for utility tokens.

Smart contract audits and legal compliance reviews are ongoing.



Why JUK Is Not a Security – Howey Test Compliance Summary

The JUK Token does not meet the criteria of a security as defined by the SEC's Howey Test, which evaluates the following four prongs:

1. Investment of Money

Users may spend fiat or digital currency to acquire JUK, but this is for utility access—not as an investment with the expectation of profit.

2. Expectation of Profits

JUK is not marketed or structured to provide profits to holders. There are no dividends, equity, or passive income rights.

3. Common Enterprise

There is no pooling of funds for shared profit. JUK operates in a decentralized ecosystem, with all token allocations transparently defined for staking, governance, and utility—not investment.

4. Efforts of Others

Ecosystem growth is driven by DAO governance and active community participation. Neither the founder nor TouchTunes benefit from speculative token sales. Their token allocations are locked, staked, and non-transferable during the vesting period. These principles are supported by the JUK Token Distribution Chart and JUK Spend Flow Diagram, which emphasize transparency, ecosystem alignment, and non-speculative use.

Smart contract audits and legal reviews are ongoing to ensure continued regulatory compliance.

Expanded Compliance Notes: DAO Treasury, Staking, and Governance Structure

The DAO Treasury receives a 0.25-0.50% protocol-level share of all JUK token spending. These funds are governed by community vote and used to support operational development, grants, and upgrades. DAO grants are issued based on approved proposals and completed work, and are not linked to token market performance or speculative outcomes.

Staking rewards received by the founder and TouchTunes are earned through protocol-native staking on the Flare Network. These rewards represent compensation for participation in network security and governance, not profit-sharing or dividends.

A formal decentralization roadmap will be published to transition treasury control, protocol upgrades, and governance rights from Doltech and TouchTunes to the JUK DAO, with multisig protections and community voting systems guiding treasury allocation and platform evolution.



Conclusion

The JUK Token represents a groundbreaking innovation in the music and entertainment industry, seamlessly integrating blockchain technology, augmented reality, and the metaverse to redefine how music is experienced, monetized, and shared. By leveraging the XRPL for efficient payments and the Flare Network for smart contract functionality, JUK offers a decentralized, transparent, and interactive ecosystem that bridges physical venues and digital spaces. Its utility spans real-world jukebox payments, immersive AR experiences, and DAO-driven governance, empowering users and venues alike.

With a fixed supply of 100 million tokens, transparent allocation, and compliance with global regulatory standards, JUK is designed for sustainable growth and community trust. Its integration into the TouchTunes network of 65,000 jukeboxes and 2.7 million mobile app users positions it as a pioneer in merging blockchain with traditional entertainment venues. The token's applications in virtual jukeboxes, AR social layers, and NFT-based fan engagement further extend its reach into the metaverse, creating new opportunities for monetization and interaction.

JUK's decentralized governance model ensures that the community drives its evolution, fostering innovation and alignment with Web3 principles. By addressing industry challenges such as high transaction fees, chargebacks, and limited global access, JUK paves the way for a vibrant, cross-platform music economy that benefits artists, venues, and fans alike. As the first music token to bridge real-world and digital experiences, JUK is poised to transform the future of music engagement and commerce.

Decentralization Comparison: JUK Token vs. Bitcoin and Ethereum

Feature	Bitcoin (BTC)	Ethereum (ETH)	JUK Token (JUK)
Launch Year	2009	2015	2025
White Paper DAO Mention	None	None (DAO came later)	Explicit DAO with roadmap and launch plan
Token Supply	21M, mined	120M+ (inflationary)	100M fixed supply
Token Distribution	No premine, mined by public	Premine (~72M), ICO	Allocation map + staking + DAO funding
Founder Token Allocation	None	Yes	15% time-locked, staked (3-year vesting)
Governance Method	Off-chain via node consensus	Community + GitHub EIPs	On-chain: Snapshot + Gnosis + phased DAO
DAO Structure	Not applicable	Introduced later	Multisig → Elected DAO → Full on-chain DAO
Smart Contracts	None	Native	Flare + XRPL smart contracts
Treasury Model	None	Ethereum Foundation guided grants	DAO Treasury funded via 0.25-.50% JUK spending
Security Classification Risk	Very low	Medium (ICO history)	Moderate–Low (DAO + no profit promises)
Community Governance	Node operators	Hybrid	Snapshot proposals + votes



JUK Token White Paper – Full Q&A Appendix

The following expanded Q&A section addresses common questions about the JUK Token ecosystem, TouchTunes integration, DAO governance, AR/Metaverse features, and technical considerations.

GENERAL OVERVIEW

Q1: What is the JUK Token? A1: JUK is a decentralized utility token issued on the XRPL and extended via Flare Network. It enables low-cost music payments, governance, digital experiences, and AR interaction across the TouchTunes network.

Q2: Who developed the JUK Token? A2: JUK was founded by independent creators and is strategically aligned with TouchTunes through a staked reserve model, incentivized operator adoption, and open integration.

Q3: What makes JUK different from other music or crypto tokens? A3: JUK focuses on real-world jukebox payment utility, DAO-based governance, XRPL efficiency, Flare-based smart contracts, and an immersive AR experience at real venues.

TOKENOMICS & COMPLIANCE

Q4: How is the token supply structured? A4: JUK has a fixed supply of 100 million tokens, with transparent allocations for community rewards, operator incentives, development, partnerships, and staking.

Q5: How are founder and TouchTunes tokens managed? A5: The founder receives 15% of the token supply, which is staked and time-locked with a 36-month vesting schedule to ensure long-term alignment and commitment. TouchTunes receives 25% of the supply, of which 55% is staked for 36 months. The remaining 45% is reserved for operational and strategic collaboration, with no ownership or dividend rights attached. Both are staked and time-locked with vesting terms over 36 months. These tokens are not used for speculative investment.

Q6: Is JUK considered a security? A6: No. JUK is structured as a utility token. It grants no ownership, equity, or dividend rights to holders, including founders and TouchTunes. While the founder holds 15% and TouchTunes 25%, these allocations are governed by vesting schedules, staking, and utility restrictions. Their purpose is to support operational leadership, platform growth, and alignment—not equity participation or speculative gain.



Q15: Can avatars be customized? A15: Yes. Verified users can choose avatars, voices, and filters. All customizations are moderated, and real identity is verified via KYC.

Q16: Is there a dress code or behavior policy? A16: Yes. AI moderation and venue controls prevent inappropriate avatar visuals, impersonation, or offensive language.

SUBSCRIPTIONS & VENUE REVENUE

Q17: What do bars or venues gain from participating? A17: New revenue streams through JUK token tips, subscriptions, remote purchases, music control, AR branding, and licensing.

Q18: Is there a subscription cost? A18: Yes. Remote users pay per venue or via monthly AR passes using JUK or USDC. Venues pay a licensing fee for AR tools and dashboard.

Q19: Can purchases be made for future use? A19: Absolutely. Remote guests can pre-order food or drinks for future visits, redeemable via QR or AR-linked accounts. Select venues may also offer delivery or pickup options, potentially in partnership with local services accepting JUK or USDC.

Q20: Are there digital collectibles involved? A20: Yes. Users earn POAPs, leave digital signatures, and unlock exclusive NFTs for visits, interactions, and song moments.

TECHNICAL INFRASTRUCTURE

Q21: What is spatial mapping? A21: The process of scanning a physical space and anchoring digital avatars or content in real-world coordinates for immersive AR experiences.

Q22: How are jukeboxes connected to blockchain? A22: Each unit is tied to a unique wallet. Transactions route via XRPL, with revenue sharing and data management handled by Flare smart contracts.

Q23: Can the AR interface run offline? A23: Offline payments via Bluetooth and QR codes are possible for venues with low internet connectivity, using preloaded JUK balances.

MODERATION & SAFETY

Q24: How is content moderated? A24: AI-driven filters scan audio and visual content. Venues can manually mute or hide avatars. Repeat violations trigger cooldowns or bans.

Glossary of Key Terms

XRPL

XRP Ledger - a decentralized, high-speed, low-cost blockchain used for payments.

Flare Network

A blockchain platform that enables smart contracts and data integration from other chains like XRP, BTC, and ETH.

Gnosis Safe

A multi-signature wallet system used to securely manage DAO treasury funds with shared control.

Snapshot

A governance tool that enables token holders to vote on proposals off-chain based on their token balances.

DAO

Decentralized Autonomous Organization - a community-led entity with no central authority, where decisions are made via on-chain or off-chain governance.

fJUK

Staked version of the JUK Token on the Flare Network, representing long-term alignment and locked rewards.

POAP

Proof of Attendance Protocol - digital collectibles that prove participation in an event or experience.

KYC

Know Your Customer - identity verification process used to ensure legal compliance and user accountability.

Glossary of Key Terms

AR

Augmented Reality - an interactive experience overlaying digital elements in real-world environments.

NFT

Non-Fungible Token - a unique digital asset representing ownership of digital or real-world items or content.

Metaverse

A collective virtual space that merges digital and physical experiences, often using 3D/AR/VR technologies.

Staking

Locking up tokens in a blockchain protocol to earn rewards or support network operations (e.g., validator incentive).

Legal Disclaimer

JUK Token is designed for potential integration with leading digital jukebox networks, such as TouchTunes, subject to future partnership agreements.

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