Affi Network 2.0: The Evolution of Decentralized Affiliate Marketing

Facilitating On-chain Incentives To Power Millions of Payouts Worldwide

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Contents

Abstract

Affi Network is a decentralized incentives and performance marketing protocol implemented for the Ethereum Virtual Machine ecosystem. Preliminary iterations of the protocol focused on affiliate marketing within the realm of non-fungible tokens. With an overarching objective to extend decentralized performance marketing across diverse categories, the project endeavors to establish a landscape characterized by heightened transparency, security, and efficiency. Affi Network aspires to redefine conventional marketing paradigms through decentralization and bring on-chain incentives to millions of users worldwide.

1 Introduction

Affiliate marketing has undergone a substantial transformation, adapting to technological advancements and market demands. From its inception in the late 1990s, where it primarily relied on traditional advertising models, to its present-day prominence in e-commerce, affiliate marketing has evolved into a vital component of digital marketing strategies. However, this evolution has not been without challenges, prompting the exploration of innovative solutions, particularly the integration of blockchain technology.

Past:
Early affiliate marketing involved simple referral systems and tracked sales through cookies. Over time, it expanded to incorporate various models such as pay-per-click, pay-per-lead, and pay-per-sale, fostering a robust ecosystem of advertisers, publishers, and consumers. Nonetheless, issues such as fraud, lack of transparency, delayed payments, and intermediary dependency persisted.

Present:
The current affiliate marketing landscape faces challenges of trust and inefficiency. Fraudulent activities, including fake leads and clicks, undermine the credibility of the industry. Additionally, intermediaries often impose high fees and delays in payment processing, affecting both advertisers and publishers. Lack of transparency in tracking and attribution also hampers the fairness of incentive distribution.

Future:

Blockchain technology presents a promising solution to these challenges. A decentralized affiliate marketing protocol built on blockchain offers transparency, security, and efficiency. Smart contracts enable automated, tamper-proof agreements, ensuring fair and timely payments. Immutable ledgers provide transparent tracking and attribution, mitigating fraudulent activities. The elimination of intermediaries reduces costs and enhances efficiency and trust between advertisers and affiliates.

Additionally, the affiliate marketing landscape is evolving. Affiliates are not only incentivized to drive sales, but also to complete tasks that increase user participation and engagement, such as voting on a poll, playing a game, or making a trade. The integration of blockchain technology into performance marketing heralds a decentralized future. A protocol leveraging blockchain's capabilities can revolutionize the industry, addressing existing pain points and fostering a more equitable and efficient ecosystem. By embracing decentralization, performance marketing can evolve into a transparent, secure, and trust-driven environment beneficial to all stakeholders.

1.1 On-chain Events

On-chain events, managed by smart contracts, are automated actions occurring within a blockchain network. These events are triggered by predefined conditions or transactions recorded on the blockchain. In performance marketing for on-chain events, smart contracts execute incentive payouts automatically when specific on-chain actions, such as product purchases or user interactions, are verified. Participation activities, coded into the smart contract, trigger incentive disbursement immediately upon validation of these on-chain actions, ensuring transparent and instant compensation for their efforts.

1.2 A Blockchain-Integrated World

A blockchain-integrated world signifies an ecosystem where industries ranging from finance, supply chain, healthcare, and real estate leverage blockchain technology for transparent, secure, and efficient operations. Rapid strides in this integration are evident through the tokenization of real-world assets, transforming physical assets like real estate or art into digital tokens, enhancing liquidity and accessibility. As tokenization proliferates, the demand for on-chain marketing solutions escalates across various sectors. This demand stems from

marketers seeking participation from targeted users to achieve internal KPIs, and the need to incentivize and track contributions in on-chain transactions. Leveraging blockchain ensures fair and automated incentive distributions within these economies. The surge in protocols across industries also propels the demand for on-chain performance marketing solutions. The convergence of blockchain with diverse industries highlights the imminent shift toward a decentralized paradigm, marking an era of enhanced accessibility, transparency, and efficiency across global markets.

1.3 The Need for a Decentralized Solution

Decentralization stands as a cornerstone in mitigating vulnerabilities inherent in centralized systems, fostering transparency, resilience, and equitable participation. The world is swiftly gravitating towards decentralized economies and ecosystems, recognizing the inefficiencies and susceptibilities of centralized models. This shift stems from the growing distrust in intermediaries, the quest for transparent governance, and the pursuit of inclusive participation. As blockchain technologies spearhead this evolution, offering decentralized frameworks, the demand amplifies for marketing solutions to mirror this decentralization. Decentralized affiliate and incentive solutions align with this paradigm shift, ensuring fairness, transparency, and autonomy in reward distribution while empowering a diverse array of participants. In embracing decentralization, these solutions adapt to the evolving landscape, championing equitable incentives and contributing to the proliferation of decentralized economies and ecosystems across sectors.

2 Affi Network - Decentralized Performance Marketing Protocol

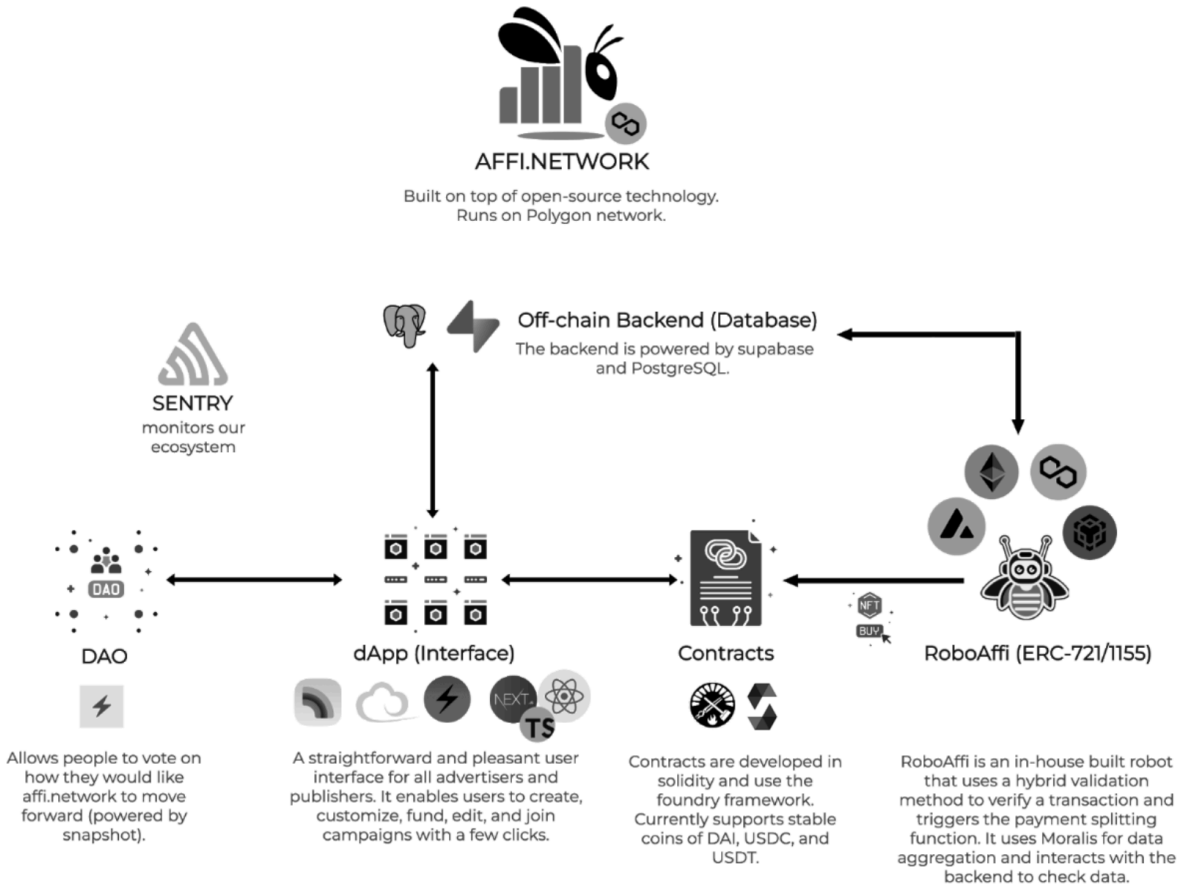
Introducing Affi Network, a pioneering force in decentralized performance marketing, leveraging open-source technologies. Our dedication spurred the conceptualization, development, and meticulous testing of a specialized decentralized affiliate solution tailored for the NFT sector. This innovation facilitated seamless collaborations between advertisers and publishers, streamlining promotions for NFT mints. Operating as a self-serve, no-code engine, the platform empowered advertisers to swiftly deploy smart contract-based affiliate programs. Tailored payout parameters ensure payment solely upon triggered conversions, alleviating the expense for advertisers of constructing an in-house affiliate system and attracting publishers. Publishers

benefit from instant earnings via smart contracts, bypassing customary waiting periods or thresholds, fostering a trustless ecosystem.

While the initial focus rested on affiliate marketing for NFT mints, Affi Network envisions broad integration of blockchain protocols across diverse sectors, democratizing decentralized on-chain performance marketing and incentive distribution.

2.1 Architectural Model

The image below illustrates our architectural model used for version 1. We are currently making modifications for Affi Network 2.0 to facilitate on-chain incentives beyond the NFT sector.



2.2 Platform Overview

a) **Campaign Creation:** Advertisers utilize our dApp to tailor and launch affiliate campaigns by setting payout structures and campaign specifics. Each campaign is launched as a smart contract, managing the reward pool funded upon campaign initiation. Even after campaign launch, advertisers retain the ability to modify budgets and campaign timelines at the smart contract level.

b) **Campaign Participation:** Publishers join campaigns of interest through our dApp, obtaining exclusive referral links from campaign contracts. Sharing these links enables publishers to earn rewards upon driving successful conversions. Any user, via web wallet, can participate in campaigns, obtain a referral link, and earn rewards.

c) **Verification & Payments:** Users benefit from our tracking bot, RoboAffi, which validates conversions on-chain, ensuring real-time reward distribution. Our system offers complete transparency, displaying conversion tracking and payout details on the campaign page and dashboard, ensuring users can monitor their progress.

2.3 Interface & Capabilities

a) Wallet authentication
b) Campaign marketplace
c) Campaign creation and edits
d) Stablecoin deposits and withdraws
e) Multi-chain tracking
f) Campaign pool monitoring
g) Affiliate link generation
h) Transaction verification
i) Automated real-time payments
j) Incentive tracking

2.4 Tech Stack

Affi Network stands on the pillars of open-source technologies, meticulously selected to foster

innovation and functionality within our ecosystem. This section portrays the technologies employed across the platform and elucidates the rationale behind their adoption.

Programming Languages:

TypeScript: Chosen for its robust error detection, enhancing reliability in production, and superior IDE support.
Solidity: Embraced for its compatibility and proficiency in executing Ethereum Virtual Machine operations.
Bash, SQL, CSS3, HTML5: Integral languages incorporated for varied functionalities, ensuring versatile operations within the platform.

Application (dApp):

TypeScript: Reducing error occurrences and amplifying IDE intelligence.
React, Next.js: Essential frameworks dictated by the demands of web3.
Chakra UI: An exceptional open-source JSX design system enriching user interface experience.
Rainbowkit, Siwe: Facilitating wallet connections and adherence to wallet-based sign-in protocols.
Ethers.js: Renowned as an outstanding Ethereum client.
Supabase, PostgreSQL: The preferred choices for the open-source backend and database, ensuring robust performance.
Sentry: Adopted as the error monitoring solution, aligning with our project's requirements.

RoboAffi:

TypeScript: Employed for its compatibility with project requirements.
Moralis: Utilized for cross-chain indexing, enhancing the platform's functionality.
Evaluation of RoboAffi's approach for potential transition to a compiled language for heightened security measures.

Website:

TypeScript, ReactJS: Chosen due to compatibility with project requisites.
Help Scout: For streamlining customer support and documentation.

Markdown: Recognized as the optimal language for content creation and management.

Contracts:

Solidity: Embraced for its compatibility with Ethereum Virtual Machine operations.
Solmate: Acknowledged and audited building blocks for contractual frameworks.
Mythril, Slither: Employed for robust security testing measures, ensuring fortification against vulnerabilities.
Foundry: For aesthetics, enhanced testing, and forging capabilities.

Cloud Providers:

Vercel: Embraced for its compatibility with project requirements.
DigitalOcean: Selected for its cost-effectiveness in hosting services.
Github: An industry-standard repository facilitating seamless collaboration.
Sentry: Its compatibility with project requisites has led to its adoption.
Help Scout: Incorporated to streamline customer support and documentation, providing a seamless assistance experience for our users.

2.5 Core Contracts

The foundational smart contracts establish a trustless collaboration arena for advertisers and publishers. Advertisers initiate campaigns via smart contracts, and publishers participate by entering these contracts, receiving rewards commensurate with their engagement. Advertisers can effortlessly launch campaigns as smart contracts without the need for coding. These campaign contracts are exclusively owned by the advertiser, with funds deposited directly into the campaign contract, ensuring that no other parties have access to these deposited funds.

The system comprises two primary files: **CampaignFactory** and **CampaignContract**. The factory, deployed by the protocol, empowers advertisers to deploy campaign contracts.

The Factory facilitates the creation of campaigns supported by either more decentralized DAI or less decentralized stablecoins. Future iterations of Affi Network aim to introduce AFFI as a payout option.

Each campaign contract, deployed via the factory, embeds crucial on-chain campaign details:

Duration: Users can customize their campaign duration (hardcoded lock of 30 days minimum).
Contract address: Specifies the target contract address to be tracked.
Network: Specifies network to be tracked. Compatible with a broad spectrum of EVM chains.
Cost of acquisition: Customizable amount an advertiser wants to pay per conversion.
Party shares: Specifies the % split between buyer cashback and publisher commissions.

Upon transactions at the target contract address, our proprietary tracking bot, RoboAffi, conducts rigorous sanity and security checks. Upon validation, it triggers the "sealADeal" function, effectuating payments to all involved parties.

The core contracts adopt a monolithic architecture, devoid of inline assembly and surprises, enhancing auditability. While focusing on security and simplicity over optimization, these contracts employ gas optimization strategies, including error reverting, data packing, and leveraging audited ERC-20 implementations. Operating primarily on the Polygon network, interaction with the current contract remains relatively cost-effective.

CampaignFactory Mainnet (open-source):
0x32058A926cb49237fC19717f2E307FE09A930287

2.6 RoboAffi

Our proprietary in-house built bot, RoboAffi, seamlessly handles tracking and payment attribution across various EVM-compatible chains. It efficiently reads payout parameters from campaign contracts and disburses commissions and cashback upon verified conversions.

Presently, security measures involve utilizing a confined Linux container (alpine) to reduce potential vulnerabilities and minimize code dependencies. However, this approach poses a challenge to achieving complete decentralization as the bot requires additional privileges. Although RoboAffi functions efficiently, ongoing efforts focus on eliminating the necessity for specialized access to our core contracts. This initiative aims to enhance decentralization in future phases of operation.

2.7 Security

The protocol underwent comprehensive security measures, including an extensive external audit by Beosin Blockchain Security. Internally, diverse audit methods such as Formal Verification, Static Analysis, and Typical Case Testing were diligently employed. Additionally, automated security tests using Slither (static) and Mythril (dynamic) were integrated to further fortify the system's defenses. As we grow our offerings, maintaining top-notch security practices remains a paramount focus.

Audit Report: https://beosin.com/audits/Affi-Network-Core_202303101850.pdf
Audit Hash: 54d798cbce572ecb6568432c95b2a0a8a33a93fc

2.8 Testnets & Validation

Throughout our validation process, we conducted two distinct rounds of testnet assessments, encompassing both private and public phases, engaging a substantial user base of 2,200 individuals. These meticulous trials involved the creation of over 100 campaigns, coupled with a comprehensive gathering of feedback from more than 100 users through structured inquiries using Google Forms. This extensive feedback was instrumental in refining our platform's functionalities and user-centric attributes.

Following this phase, our core contracts underwent rigorous auditing before their migration to the mainnet. Subsequently, the code was made open-source and underwent validation through Magic Store, a Web3 App Store. This validation process involved 1,733 participants who were tasked with a binary decision during onboarding. Remarkably, 97% of participants supported our platform with a Yes vote, culminating in a noteworthy 4.9/5 Validation score. Furthermore, our platform received over 100 reviews on Magic Store, reflecting the enthusiasm and positive reception toward our platform's future prospects.

2.9 Monetization

Affi Network takes a 10% fee from payout rewards upon a successful conversion. For example, an advertiser may choose to pay $1 per conversion (COA). Affi Network makes $0.10 upon verification of the conversion. The $1 along with the rest of the advertiser funds (e.g. 3,000

USDT) are stored in the campaign contract deployed by the advertiser. Projects can withdraw their remaining balance after the campaign period ends without paying any additional fees. Affi Network works completely on a performance basis. Half the revenue generated is distributed to our treasury, while the other half is distributed as revenue share to token holders. More information on revenue share can be found in section 4.1.

3 Value Creation Across Industries

Blockchain-based performance marketing disrupts industries, offering a decentralized protocol with far-reaching impacts. Across sectors like E-commerce, DeFi, gaming, and social domains, this transformative model empowers affiliates to drive engagement, user participation, and sales. In E-commerce and NFTs, participants boost exclusive product sales, while in DeFi, they encourage asset staking and yield farming. Advertisers can launch campaigns to drive community engagement, targeted on-chain conversions, and traffic to their projects across multiple industries. Furthermore, participants earn incentives by engaging in tasks and endorsing products or services. Affi Network's vision redefines engagement, incentivizing affiliates across diverse industries to reshape the landscape of digital commerce and user interaction.

3.1 E-commerce & Non-fungible Tokens (NFTs)

In E-commerce, the protocol incentivizes affiliates to endorse unique products, enhancing customer engagement and sales. With NFTs, influencers can promote exclusive drops, earning incentives on each sale or interaction. For instance, a participant marketing the launch of limited-edition sneakers or digital art on an NFT platform can earn incentives based on sales, encouraging a vibrant marketplace for exclusive items. A brand could also incentivize users to mint a free NFT at their physical store. A ticketing agency could incentivize users in the form of a cashback.

3.2 Decentralized Finance (DeFi)

Affiliates in DeFi become instrumental in driving user participation. They can advocate for decentralized lending platforms, encouraging users to stake assets or participate in yield

farming. By attracting liquidity to DeFi protocols, participants earn rewards, stimulating increased engagement and adoption within the decentralized finance ecosystem. Users who actively use DeFi protocols, such as a derivatives DEX, will be able to leverage Affi Network 2.0 for additional incentives. At the same time, other DeFi projects can utilize the platform for user acquisition and retention in a sustainable way.

3.3 Gaming & Social

Performance marketing in gaming extends beyond game sales. Affiliates incentivize social engagement within gaming communities, promoting events or in-game assets. For instance, affiliates encouraging users to participate in tournaments, buy in-game items, or interact with social features earn rewards, promoting community growth and user engagement. SocialFi projects can leverage Affi Network to drive relevant on-chain transactions based on product design and smart contract events. Affi Network aims to provide as many integrations as possible to foster the growth of the Web3 ecosystem.

4 The Integration of a Native Token

The imperative integration of a native token, AFFI, within Affi Network, reflects a critical decision in our system's evolution. This token, integral to our decentralized marketing platform, assumes multifaceted roles encompassing payouts and governance. A meticulous approach guided the design and construction of Affi Network's architectural framework and tokenomics, aiming to combine the strengths inherent in both web2 and web3 strategies. The community's centrality profoundly influenced our considerations, envisioning a future where community engagement propels the platform. While a cautious approach guides our actions, the integral role of community engagement remains paramount in shaping our tokenomics and strategic initiatives. This section delves into our methodology, token functionalities, distribution, vesting mechanisms, community-centric attributes, and forthcoming advancements.

4.1 Diverse Functionalities of AFFI within Affi Network

Payouts (Campaign Rewards): Projects can utilize AFFI tokens to initiate campaigns, unlocking added benefits when using AFFI for payouts. For instance, a project launching a

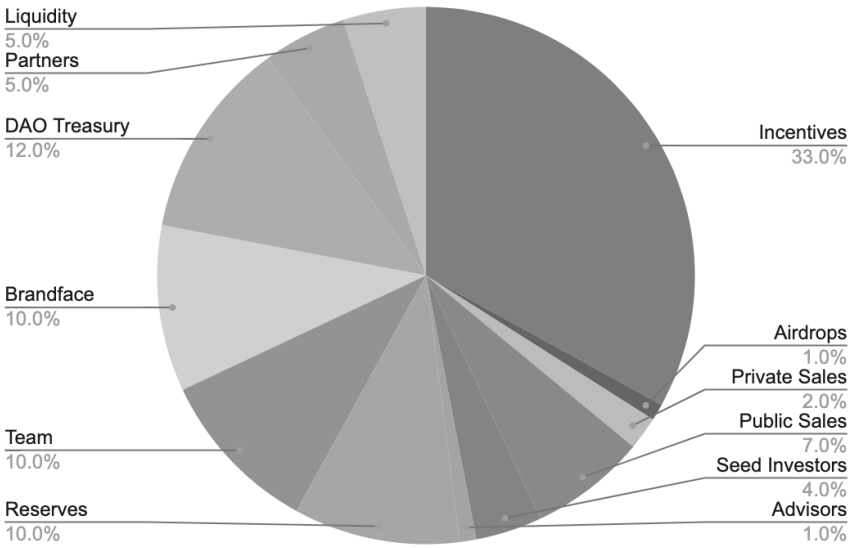
campaign promoting a new NFT collection can use AFFI for payouts, earning bonus rewards for each successful referral or sale. This incentivizes advertisers to engage more actively with the token, fostering increased campaign participation and growth within the platform.

Revenue-Share (Staking): Token holders engaging in staking activities secure a 50% share of the platform's revenue, depicted as an Annual Percentage Rate (APR). Consider an investor who acquires AFFI tokens and locks them in a staking mechanism; this individual earns a proportional share of platform-generated revenues. This incentivizes investors to hold and stake AFFI for a sustained period, facilitating a continuous stream of earnings through their participation in the platform's revenue generation.

Governance (Voting): AFFI holders wield governance power, allowing them to propose and vote on critical platform decisions. For instance, token holders can propose integrating a new feature that enhances user experience or vote on the allocation of tokens within the Decentralized Autonomous Organization (DAO) Treasury. This grants AFFI holders a direct say in the platform's evolution, fostering a community-driven governance model where stakeholders actively shape the network's trajectory.

4.2 Token Distribution

There will be a maximum of 100 million AFFI tokens and they will be allocated as specified below. Each party has its distribution schedule, depending on the arrangement and strategy.



4.3 Vesting Schedule

Allocation	AFFI Supply	Weight (%)	TGE Unlock	Lock-up	Vesting (Linear)
Private Sale 1	1,250,000	1.25%	-	6 months	24 months
Private Sale 2	750,000	0.75%	-	6 months	24 months
Public Sale	7,000,000	7%	10%	-	6 months
Seed Round	4,000,000	4%	-	6 months	24 months
Advisors	1,000,000	1%	-	6 months	24 months
Airdrops	1,000,000	1%	10%	-	6 months
Liquidity	5,000,000	5%	50%	-	12 months
Partners	5,000,000	5%	-	6 months	24 months
Incentives	33,000,000	33%	-	6 months	60 months
Reserves	10,000,000	10%	-	12 months	36 months
Team	10,000,000	10%	-	6 months	36 months

Allocation	AFFI Supply	Weight (%)	TGE Unlock	Lock-up	Vesting (Linear)
Brandface	10,000,000	10%	-	6 months	36 months
Treasury	12,000,000	12%	1%	1 month	48 months
Total	**100,000,00**	**100%**			

4.4 Community Incentives

A large portion of our token allocation is directed toward community incentives, particularly a 60-month program strategically designed to enhance user acquisition and retention. This initiative rewards user engagement—increased activity translates to augmented benefits. Active users not only gain incentives but also amass voting power and a share in platform revenues, fostering heightened community engagement.

This incentivization strategy addresses the critical aspect of user acquisition and retention in platform business models. Unlike traditional web2 platforms, which heavily burn investor funds to acquire customers, our approach employs token incentives spread over a sustainable 60-month period. This model contrasts with the high cash burn observed in web2 platforms, aligning incentives with prolonged user engagement and loyalty.

4.5 Fundraising Mechanism

We self-funded early research and development for the protocol, hosting two private sales and receiving support from over 20 investors, mostly comprising web2 and web3 operators, executives, founders, and investors. These funds enabled us to assemble a team and develop the architecture and initial product version. Seed investors receive a token warrant, with a significant portion reserved for a public sale, welcoming retail investors, advertisers, publishers, and prospective users to join our journey. A reserve pool ensures the option for future token-based capital raising or strategic expansion through M&A and partnerships if required.

4.6 Future Developments

We perceive our product and token as perpetually evolving entities, open to continuous enhancement and innovation. Exploring avenues for improvement, we contemplate implementing strategies like a buy-back and burn mechanism to refine our token dynamics. Leveraging RoboAffi's capabilities, automated processes such as purchasing AFFI on decentralized exchanges and disbursing it as cashback via stablecoin-backed campaigns upon conversion triggers in real-time are feasible. The horizon holds endless possibilities. Token-related advancements will undergo democratic voting, welcoming the developer community's active engagement and valuable suggestions. Join us in shaping our token's future.

5 Conclusion

In conclusion, the evolution of affiliate marketing, as outlined in this paper, showcases a transformative journey from its traditional roots to the promising realm of blockchain integration. The challenges faced by the industry, such as fraud, inefficiencies, and lack of transparency, find a potential remedy in the decentralized future promised by blockchain technology. Affi Network emerges as a trailblazer in this narrative, introducing a decentralized performance marketing protocol that not only addresses current industry pain points but also paves the way for a more equitable and efficient ecosystem.

5.1 Putting it all Together

The exploration of on-chain events, a blockchain-integrated world, and the necessity for decentralized solutions further ensures the potential impact of blockchain on reshaping industries. Affi Network's commitment to transparency, security, and autonomy is encapsulated in its decentralized performance marketing protocol, offering solutions to longstanding challenges. As the world progresses towards decentralization, the demand for on-chain performance marketing solutions becomes imperative, aligning with the broader shift towards decentralized economies and ecosystems.

The introduction of Affi Network's decentralized affiliate marketing protocol, built on open-source technologies, signifies a groundbreaking step towards revolutionizing the industry. The platform's initial focus on NFTs serves as a launchpad for broader integration, with a self-serve, no-code engine empowering projects and users. The architecture, represented in the core contracts and RoboAffi components, embodies security and simplicity while facilitating transparent and instant payment processes. Affi Network's vision extends beyond NFTs, aiming to democratize performance marketing across diverse sectors while distributing incentives to millions of people worldwide.

The integration of a native token, AFFI, within Affi Network adds a layer of sophistication to the platform, offering diverse functionalities that further incentivize active participation. The token's role in payouts, revenue-sharing through staking, and governance amplifies the community's influence in shaping the platform's trajectory. The comprehensive token distribution and vesting schedule emphasize transparency and strategic allocation.

Community incentives, a pivotal aspect of Affi Network's strategy, underscore the importance of sustained user engagement. Unlike the cash burn model of traditional platforms, Affi Network adopts a sustainable 60-month program, aligning incentives with prolonged user loyalty. The fundraising mechanism, coupled with a reserve pool, ensures flexibility for future capital raising or strategic expansion.

In shaping the future, Affi Network envisions continuous improvement, contemplating strategies like a buy-back and burn mechanism. The democratic voting system invites active engagement from the developer community, ensuring the collective evolution of the platform and its token.

5.2 Additional Factors Driving Network Growth

Beyond the outlined aspects, novel catalysts propel decentralized performance marketing growth. Innovations like cross-chain interoperability broaden accessibility, allowing integration with diverse blockchain ecosystems. Enhanced user experience through intuitive interfaces and scalability attracts broader user demographics. The increased adoption of web3 will result in a surge of tasks and opportunities for the industry as most projects have adopted an incentive strategy in their marketing mix to drive participation. Collaborations with emerging industries, such as metaverse integration or emerging tech alliances, expand market reach. Additionally,

dynamic reward mechanisms, including NFT-linked incentives or loyalty programs, incentivize deeper engagement. Regulatory compliance measures and proactive community education ensure sustained trust. These unexplored factors, coupled with evolving market dynamics, wield considerable influence in fostering a robust and expansive decentralized performance marketing protocol ecosystem.

5.3 A Decentralized Incentive Protocol For Everyone

Affi Network's decentralized performance marketing protocol marks a paradigm shift in the industry, offering a transparent, secure, and trust-driven ecosystem. As blockchain continues to redefine industries, Affi Network stands at the forefront, contributing to the proliferation of decentralized economies and ecosystems across sectors. The journey unfolds, inviting stakeholders to actively participate in shaping the future of decentralized incentive distribution.