

The Future of Marketing is Ad-free

WOM Protocol Whitepaper

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Executive Summary

The digital advertising market is worth $237 billion worldwide. Brands and advertisers compete against each other for consumers' increasingly-limited attention using over-saturated advertising mediums. Ad-blockers, skepticism concerning "authentic" influencer brand promotions, and banner-blindness mean much of advertisers' budgets are wasted on ineffective strategies.

The marketing industry understands that customer referrals are the most effective form of marketing. These word-of-mouth recommendations are shared online 2.1 billion times each day in the form of videos, photos, or text. They have the highest conversion rate due to the **level of trust** between the recommender and recommendee.

Yet brands and marketers do not have an effective and scalable way to properly identify, incentivize, and measure trusted peer-to-peer recommendations. Even worse, methods such as affiliate and influencer marketing can compromise the trustworthiness of content and its creators.

Generation Z consumers especially (those born between 1995-2005) have a heightened awareness of sponsored content created by influencers paid to spread brand messages. For these young consumers, this not only causes a lack of trust in the content creator, but also in the brand paying for the creator's reach and potential influence over purchase decisions. This, in turn, means that the real fans and advocates making honest recommendations are not rewarded for the value they bring to brands through their genuine content.

The question is: how can brands leverage honest content created by real fans?

The WOM Protocol, together with the WOM Token, is our answer. The WOM Protocol, which is based on blockchain technology, will enable brands to access genuine word-of-mouth recommendations. The WOM Protocol will provide a way to reward creators for their product-referring content without compromising consumer trust in the content and its creators.

WOM Protocol Pte. Ltd. will launch a Token Generation Event (TGE). The purpose of the TGE is to finance the creation of the WOM Protocol and to

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bring immediate value to the WOM Token. WOM Protocol Pte. Ltd. (WOM Entity) will act as an initial arbiter and then, subject to the prevailing regulatory environment, dissolve once a Decentralized Autonomous Organization (DAO) has been established.

The WOM Entity is building the WOM Protocol platform to enable brands to connect with fans and reward them on a global scale. It will facilitate the scaling of the WOM Ecosystem and enable monetization of word-of-mouth content for brands, creators, and publishers. It will do so without one central party exclusively profiting from the collective value created by genuine word-of-mouth content within this global marketplace. Every participant not only creates value, but has the opportunity to be fairly compensated for the value growth they create as a cooperative.

The ultimate goal of the WOM Entity is to structure the WOM Protocol in a way that it cannot be owned and controlled by one single entity. Instead, it will be equally owned by everyone participating in the protocol through receiving, using, or holding WOM Tokens. Changes in the protocol could lead to beneficiary groups of participants and will therefore be decided by everyone involved in a collaborative way. This will be achieved using state-of-the-art blockchain governance mechanisms for decentralized organizations in a legally compliant manner.

Independent, decentralized applications (DApps), will enable brands to engage with the WOM Protocol directly without the need for a trusted third party. The DApps will list available WOM content on the blockchain and connect it to brand campaigns. These links are created through smart contracts that measure the engagement with each piece of content and subsequently reward the content creators. The WOM Token, running on the Ethereum blockchain, enables a reward mechanism to incentivize the creation and supply of WOM content without the need for a brand to pay for access.

The WOM Protocol also enables content apps, blogs, and other content distribution platforms to easily implement a new and non-invasive revenue model. Every platform that hosts brand- and product-recommendation content, alongside other forms of content, can implement the WOM Protocol.

Once the protocol is enabled, the platform's users can earn WOM Tokens by creating and sharing WOM content. The content platform can then take a share of the WOM Token rewards and therefore does not need to

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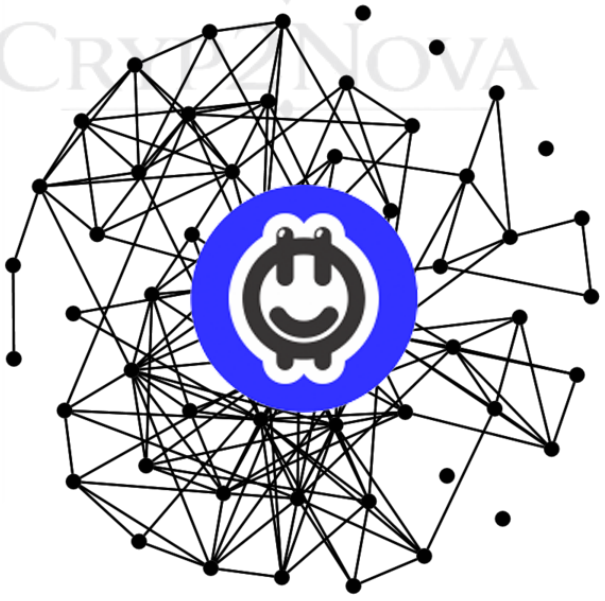
rely on an advertising model to generate revenue. Rather, the revenue comes from focusing on user experience and growing the user base of content creators and consumers.

The WOM Protocol will be designed as an open, censorship-resistant, and decentralized protocol. It may be used by any other company, app, entrepreneur, or individual who stands to benefit from connecting with a high quality, word-of-mouth content marketplace. The objective is to enable an entire ecosystem to emerge, in which any content creator, publisher, developer, and brand has access to the open-source WOM Protocol and therefore genuine word-of-mouth marketing.

The WOM go-to-market strategy focuses on apps with a high proportion of Generation Z users. Teenagers and young twenty-somethings are a great starting point to bring blockchain to the masses. They are digital natives and understand the concept of digital scarcity much more intuitively than older generations. They also grew up with social media and are open to earning extra incremental amounts to increase their pocket money.

YEAY GmbH will be the initiator and first adopter of the WOM Protocol and the YEAY app will be the first platform to implement the protocol.

As the number of participants in the WOM Ecosystem grows, so does the demand for WOM Tokens, which are needed to interact with the protocol. In this way, the network effect increases the value of the WOM Ecosystem over time.



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The State of Online Marketing

Word-of-mouth is the oldest and single most effective means of persuasion known to humankind. In the digital era, the power and reach of word-of-mouth has grown exponentially.

Every day 2.1 billion product recommendations are made among friends on social media, across blogs, within emails, and through instant messengers.[1] People casually share photos, videos, and links with one another promoting things they have bought or want to buy, be it food or fashion, without realizing the commercial value of their voices.



The trusted relationships between consumers and their peers have the power to influence brand perception and also convert into sales. Peer-to-peer marketing is the leading driver behind almost 50% of all purchase decisions.[2] Businesses know this - that's why they have been measuring their Net Promoter Scores for the past 15 years to see whether their consumers like their product or service enough to recommend it to their friends.

[1]Consumers talk about ten brands a day. 7% of mentions happen online, equivalent to 0.7 per day. Multiply 0.7 by the 3 billion current social media users and this equates to 2.1 billion online brand mentions a day.
https://www.marketingweek.com/2010/09/22/conversations-on-brands-are-vital-discuss/
https://thenextweb.com/contributors/2017/08/07/number-social-media-users-passes-3-billion-no-signs-slowing/#.tnw_Oi2CUuNd
[2]https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/a-new-way-to-measure-word-of-mouth-marketing

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The Problem: Ineffective Online Marketing

Yet despite the efficacy of word-of-mouth marketing, the current advertising industry - worth $237 billion annually[3] - focuses on performance channels and metrics. Marketers are expected to master an array of tools, exchanges, and technologies to drive conversion within ever more granular target segments.



These tools continually get smarter (retargeting, cross-device tracking, micro-fencing, etc.) but the performance marketing industry in general faces greater challenges as consumers are increasingly annoyed by websites and social media platforms for using their data for

[3]https://www.magnaglobal.com/wp-content/uploads/2017/12/121117-MAGNA-Global-Forecast_Winter-Update_Final.pdf

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commercial purposes - and for being bombarded with invasive ads as they talk to their friends.

Challenge 1: Technology Barriers

First, the use of desktop and mobile ad-blockers is growing at a rate of 30% and 62% respectively, making online advertising less and less effective.[4]

Click fraud also harms the effectiveness of online advertising. In 2017, advertisers lost $6.5 billion due to click farms and bots.[5]

Challenge 2: Behavioral Changes

In addition to physical ad-blockers, consumers also mentally block ads. 86% of consumers are “banner blind”, subconsciously skipping over or ignoring anything that feels like an ad and distracts from their goal.[6] This includes traditional pop-up and banner ads, as well as sponsored posts from influencers on social media.

Consumers’ attention spans are also shrinking and the number of distractions (apps, devices, etc.) are growing. Consumers jump from platform to platform and conversation to conversation when they get bored or see something more interesting. Advertisers, therefore, compete in an increasingly-saturated market for even less attention.

Challenge 3: Trust Issues

Marketers currently funnel some $5-$10 billion each year into recommendations from online influencers.[7] This is one way the industry has attempted to overcome ad-blockers and banner blindness using the power of peer-to-peer recommendations.

[4]https://www.emarketer.com/Article/US-Ad-Blocking-Jump-by-Double-Digits-This-Year/1014111
[5]https://ppcprotect.com/resources/BOTBASELINEANA.pdf
[6]http://www.adotas.com/2013/03/study-86-of-consumers-suffer-from-banner-blindness/
[7]http://mediakix.com/2015/12/influencer-marketing-5-10-billion-dollar-market/#gs.5p9nLZ8

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Unfortunately for brands, however, consumers are increasingly distrustful of sponsored social media and almost half consider influencers inauthentic.[8] As a result, engagement and conversion through influencer marketing is dwindling. Even worse, consumer distrust in influencers also stains the brand image.

The logical next step for brands is to hand over their marketing to the billions of regular users and fans who make authentic recommendations online every day. And yet so far leveraging honest word-of-mouth recommendations has not been possible in the broader consumer market.

Of course putting marketing into the hands of consumers demands a great deal of trust from brands. It requires a more relaxed or perhaps co-creational approach to building brand identities and leaves consumers in control of the quality of content associated with brand products - this relinquishing of control is a current concern for 63% of affiliate marketers.[9]

[8]https://www.prweek.com/article/1442535/authenticity-crisis-influencer-marketing-poor-partnerships-backfire
[9]https://www.viglink.com/blog/2017/05/15/state-affiliate-marketing-survey/

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The Problem in Numbers

1

Technology advances benefit the consumer and hurt the advertiser.

- 62% growth in mobile ad-blockers[10]
- 30% growth in desktop ad-blockers[11]
- $6.5 billion lost annually due to click farms and bot fraud[12]

2

Consumer behavior has changed.

- 86% of consumers experience banner blindness[13]
- 8-second attention span[14]

3

Gen Z Consumers increasingly do not trust advertisements.

- 56% have reduced/quit using social media due to ads[15]
- 43% of consumers think influencers are inauthentic[16]
- 75% do not trust celebrity endorsements[17]

The Solution: WOM Blockchain Protocol

Brands need a way to bring organic word-of-mouth recommendations into their marketing mix in a measurable and scalable way. The people making the recommendations should be rewarded. The relevant publishing platforms should be rewarded as well. And this all needs to happen in a way that ensures the authenticity and trustworthiness of the content.

Thanks to the invention of blockchain technology and digitally-scarce tokens, there is finally a way to meet all of these requirements, while enabling brands to incorporate genuine word-of-mouth into their marketing mix. WOM achieves this through incentive mechanisms, which are enforced by tamper-proof code and executed on an immutable blockchain. The incentive mechanisms are facilitated by the WOM Token and this keeps the whole ecosystem running and growing.

[10] https://www.emarketer.com/Article/US-Ad-Blocking-Jump-by-Double-Digits-This-Year/1014111
[11] https://www.emarketer.com/Article/US-Ad-Blocking-Jump-by-Double-Digits-This-Year/1014111
[12] https://ppcprotect.com/resources/BOTBASELINEANA.pdf
[13] http://www.adotas.com/2013/03/study-86-of-consumers-suffer-from-banner-blindness/
[14] https://advertising.microsoft.com/home
[15] https://www.lithium.com/company/news-room/press-releases/2016/lithium-74-percent-of-digital-natives-tired-of-brands-shouting-at-them
[16] https://www.prweek.com/article/1442535/authenticity-crisis-influencer-marketing-poor-partnerships-backfire
[17] https://www.lithium.com/company/news-room/press-releases/2016/lithium-74-percent-of-digital-natives-tired-of-brands-shouting-at-them

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The WOM Protocol as an Incentive Machine

Rewards for creating word-of-mouth content must not compromise the genuine nature of the content. Content creators should be fans of the brand or product they are promoting and talk about it in a positive way because they really believe in it - and not because they were paid or are going to be paid for creating and sharing brand or product-related content. The intentions behind the content need to be truthful: The more honest the content, the deeper the impact on consumer decision-making.

In summary: The content creator should not be driven solely by financial gain. Rewards are dependent on honesty and value delivered to other consumers rather than a brand's allocated marketing budget.

This is why the WOM Entity is creating a blockchain protocol and native protocol token as an incentive instrument. This blockchain-based infrastructure will enable brands to tap into the ever-growing pool of peer-to-peer, word-of-mouth recommendations. In parallel, the infrastructure will empower people to earn rewards through their own content without compromising the trustworthiness of that content. Every participant not only creates value, but has the opportunity to be fairly compensated for the value growth they create.

Any solution needs to serve the needs of the online marketing industry and the end user: decentralizing user-based marketing and bringing casual content creators - as well as professional marketers - into the fold. The infrastructure provided by the WOM Protocol and its native token delivers a solution to these challenges. With these principles at the WOM Protocol's core, the emerging ecosystem will pave the way for a completely new form of marketing: **self-sovereign marketing**.

Firstly, the WOM Token will be used to incentivize content creators to create word-of-mouth content about their favorite brands and products. Content creators are incentivized to do so on their preferred WOM content platforms and encouraged to spread the word about it.

Secondly, the WOM Token incentivizes content validators to verify the quality of the content against a series of WOM criteria, which are:

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Does it **create desire**: is the content creator referring to an object, which is to say a brand, product or service, in a positive way?



Is it **honest**: did the content creator interact with the object and talk about their real experience in a genuine way?



Is it **creative**: did the content creator spend time and effort creating the content?

Thirdly, based on the quality rating and engagement measurements, the content creator and validator receive a specific amount of tokens defined by the WOM distribution algorithms. The content platform enabling the content creation and consumption also receives a share of the tokens flowing to the content creator.

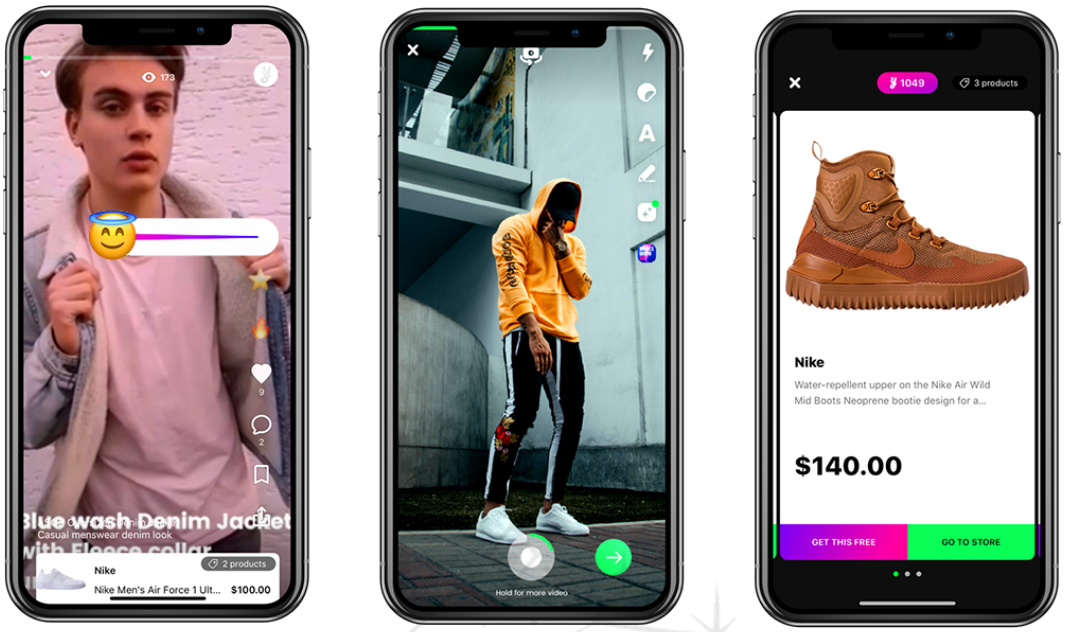
In summary, we are building the infrastructure to enable a marketplace for genuine word-of-mouth marketing by incentivizing the supply side of the market. Brands and marketers can then easily connect with online peer-to-peer recommendations. These connections are automatically created when users upload their user-generated content, whether that is a photo, video, or text, in apps and on websites that are integrated with the WOM Protocol.

The WOM Token helps brands realize the marketing potential of a behavior that already happens online, everywhere, everyday. Starting with the YEAY app, we are building the first interface and a clear go-to-market strategy to bring that vision to reality.

YEAY: The Go-to-Market Strategy

The WOM Protocol will be brought to market initially through the YEAY app: the leading video-based recommendation engine providing Generation Z with a social space to share styles and fashions and providing brands with an audience to reach and reward them for their engagement.

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YEAY was founded in December 2015 and came out of beta in January 2017. In its first year the app generated a user base of 170,000 registered users and 717,000 downloads, as well as funding from investors, including the former COO of AirBnB, Varsha Rao, and former CEO of Deutsche Telekom, René Obermann. Currently more than half of users are Generation Z.

yeay

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🙏	📲	🌎	🎥	🔥
180k	**800k**	**22**	**5m**	**58%**
registered users	downloads	languages	video views	GenZ users

YEAY's dedicated community of Generation Z content creators are the ideal catalyst to make the WOM Token a standard unit across content publisher destinations.

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Why Gen Z?

Numbering 65 million in the US alone,[18] Generation Z is a powerful consumer group with an annual purchasing power of $143 billion.[19] Having grown up with constant mobile access to information and at a time of increased skepticism over fake news, they have learned to filter content quickly. They tune out traditional media and block advertising, with one in four (23%) using ad blocking software on their desktop computers and 18% installing it on their phones.[20]

In many ways Generation Z are the product of a high-tech and hyper-connected upbringing and their behaviors will shape the future generations of new and engaged consumers that follow. This makes them a valuable market segment to understand - and the perfect early adopters of the WOM Token.

Funding the Development and Growth of the Economy

Blockchain technology does not only enable the creation of token-based incentive mechanisms. The TGE kickstarts the WOM Ecosystem and its development. Furthermore, the creation of tokens that are subsequently issued through the protocol mechanisms incentivize actors to participate in the protocol. This creates value for the whole ecosystem and supports its growth.

Blockchain Enables the Creation of WOM as a DAO

Blockchain technology allows the development of the WOM Protocol as a trustless infrastructure for WOM content. The core mechanisms for emitting and distributing tokens as well as managing the trades between brands and content creators run as immutable code on the blockchain.

Therefore, no need exists for a single entity to be in control and solely profiting from the value creation as a central marketplace operator. Building the whole protocol on the blockchain enables the WOM marketplace to be truly decentralized and self-governed.

Instead of being owned by a single entity, the WOM marketplace will benefit everyone participating in the protocol through receiving, using, or holding WOM Tokens. Changes in the rules of the marketplace could lead to beneficiary groups of participants and will therefore be decided

[18] https://www.statista.com/statistics/296974/us-population-share-by-generation/
[19] http://www.millennialmarketing.com/2017/12/understanding-the-influence-of-gen-z-on-household-spending/
[20] http://www.marketing-interactive.com/traditional-media-makes-a-comeback-with-the-highly-critical-genz/

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by everyone involved in a collaborative way. This will be achieved using state-of-the-art blockchain governance mechanisms for decentralized autonomous organizations (DAO) in accordance with all prevailing laws and regulations.

The WOM Ecosystem

The WOM Ecosystem is a community of participants who build, operate, and interact with content creation and distribution services, incentivized by the emittance and fair distribution of WOM Tokens.

The **open-source WOM Protocol** enables the community participants to transparently interact with each other without the need for a middleman controlling the emission and distribution.

The protocol works like an opt-in legislation. It has set parameters and an automated tribunal. This forces a fair, peer-to-peer interaction without the need for a centralized middleman controlling the activities within the economy.

The structure of the protocol is designed to be as decentralized as possible using best practices and recent research findings. It will be deployed on the Ethereum Virtual Machine (EVM) on top of the **Ethereum Blockchain** and combines several decentralized libraries and frameworks which are very robust against destructive interference.

Since participants can be fairly compensated for interactions with the WOM Protocol, there is an incentive for malicious activities to take place. These activities could wrongly increase the personal payout of WOM Tokens. Within an open system with no central party to reject participants or enforce a set of terms and conditions, other mechanisms are needed to enforce the rules for fair engagement with the protocol.

To counter the incentive for malicious activities, the WOM Protocol will enforce participants to stake (AKA deposit) tokens as a security for acting within the given set of rules if they want to earn WOM Tokens for performing their task. This enables the protocol to autonomously penalize participants and take away the tokens if the participants fail to perform their work or deliberately cheat the ecosystem. These tokens will then be redistributed to other participants who act fairly.

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The various participants in this decentralized trust ecosystem are illustrated below.

Participant Types

There are six different types of stakeholders and participants within the WOM Ecosystem:



Content Creators

- Create WOM-relevant content on a platform.
- Earn WOM Tokens for user engagement with WOM content.
- Stake WOM Tokens as collateral to receive the right to participate in content creation in exchange for the option of earning WOM Token rewards.
- Lose WOM Tokens if cheating (fake accounts, click farms, collusion, etc.) the WOM Ecosystem.



Consumers

- Receive access to high-quality, trustworthy WOM content.
- Benefit from recommendations of trusted peers.
- Engage with WOM content on a platform.
- Confirm the honesty of the content.
- Confirm the creativity of the content.
- Confirm desire for a brand, product, or service.



Authenticators

- Validate the content according to WOM relevance.
- Earn WOM Tokens for validating WOM content.
- Stake WOM Tokens as collateral to receive the right to participate in content validation in exchange for WOM Token rewards.
- Validate the honesty of the content.
- Validate the effort invested into creating the content.
- Validate desire for a brand, product or service.
- Lose WOM Tokens if cheating the WOM Ecosystem.



Brands, Retailers, & Marketers

- Use WOM Tokens to gain access to user-generated WOM content.
- Create a connection to new consumers through their fans.
- Can add links to WOM content and track engagement.
- Can increase the reach of specific content.
- Can incentivize the creation of content about a specific product.
- Can reward their fans just for being loyal advocates.

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Content Publishing & Distribution Platforms

- Provide interfaces to the WOM Protocol for creators and consumers.
- Earn a share of content creator rewards.
- Operate as trusted intermediaries for tracking content interactions.
- Design news feed algorithms to properly place authenticated content supported by brands to maximize platform rewards.



TGE Participants and Future Token Holders

- Initiate and uphold the token value.
- Kickstart the economy.
- Benefit from potential value-added creation within the economy.
- Hold a governance role in future stages of the economy.

These participants interact with each other and the WOM Protocol either directly through DApps or through centralized gateways such as apps, content management platforms, and campaign managers. These provide user interfaces and currency bridges controlled by a centralized and trusted third party.

Here is an in-depth description of each participant and their roles and interactions within the WOM Ecosystem.

Content Creators

Content creators are at the heart of value creation. They create word-of-mouth content, which is the core asset in the WOM Protocol. This content fuels the supply side of the decentralized WOM marketplace.

Content creators receive rewards in the form of WOM Tokens for their work, which can then be exchanged with any other desired token, coin or currency. The tokens can also be staked as collateral to receive the right to participate in content creation in exchange for WOM Token rewards.

Content creators need to stake WOM Tokens in order to be listed in the WOM content marketplace and eventually earn rewards for their content. Staking is necessary to ensure the protocol is not spammed with poor-quality content and that creators can be punished for malicious activities that harm the economy.

The quality of word-of-mouth content, as measured by the authenticators, determines whether content creators are able to

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receive rewards for their work. The quality of WOM content is defined in three dimensions: honesty, effort, and product desire.

If content is valued below a certain threshold, content creators lose their staked WOM Tokens. If content is rated above a certain threshold, content creators may earn rewards with their content. This depends primarily on engagement KPIs, including clicks and views. Other factors include brand engagement and the total number of tokens emitted from the "Value Creation Rewards & Economy Scaling" token pool from which individual rewards are distributed.

Consumers

Consumers interact with content on one of the content apps (such as YEAY) acting as a trusted oracle for the WOM Protocol. These interactions are measured as engagement KPIs, which define the amount of WOM Tokens distributed as content creator, authenticator, and platform rewards.

WOM content is valuable for consumers and worth their attention. It helps them make educated purchase decisions based on the honest statements of trusted peers who are active as content creators. The more engagement a piece of content receives, the more valuable it is for the brand mentioned in the content as well as for the whole economy. It increases the supply side of the WOM marketplace and meets brand demands.

Content Authenticators

Content authenticators identify and validate valuable word-of-mouth content within the WOM Ecosystem. They receive notifications as new content is published and are rewarded for their timely evaluations. In order to incentivize sound evaluations, the WOM Protocol requires that authenticators stake tokens as collateral as well.

The collective authenticator evaluations serve as oracles to oversee the performance of each individual authenticator. If an individual authenticator deviates from the collective authenticator evaluations too significantly, the authenticator loses their staked tokens. If an individual authenticator evaluation aligns with the collective authenticator evaluations, the authenticator is rewarded.

The authenticator reward also depends on the time passed since the content was published, how far the evaluation deviates from the average authenticator evaluation, and the total number of tokens

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emitted from the “Value Creation Rewards & Economy Scaling” token pool.

Brands, Retailers, and Marketers

The WOM Ecosystem enables brands and retailers to connect with genuine word-of-mouth recommendations. The more visible high-quality, brand-related WOM content becomes, the greater its effect on consumer purchase decisions.

This process is facilitated by campaign managers. Campaign managers enable brands to indirectly influence the weight of brand-related content. The economic mechanism is as follows: brand campaigns may increase the rewards that content creators receive through brand-related content as defined in the protocol. As a result, content platforms have an incentive to grant this brand-related content higher visibility in their news feeds. The platforms earn a share of the content creator reward - and higher visibility correlates with higher interaction which drives rewards.

Additionally the brand can insert a link to its campaign. The link is placed behind the brand-related content piece. The content creator must give prior consent, e.g. by accepting the general business terms of the platform. The content creator has an incentive to grant this access since this boosts his potential rewards.

As soon as a consumer engages with the content or clicks on a link, the protocol initiates an additional token flow from the campaign to the protocol, which then distributes an increased amount of WOM Tokens to the content creator, authenticator, and platform.

Content Distribution Platforms and Developers

Content distribution platforms, such as the YEAY app, ensure that content can be accessed by consumers. These platforms provide an interface to access valuable word-of-mouth content.

The WOM Protocol enables platforms to create a new business model by receiving a share of the content creator rewards from the content published on their platforms. Rewards issued from the “Value Creation Rewards & Economy Scaling” token pool and campaigns are transferred directly to platforms.

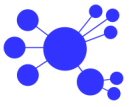
The platform itself can define the share of the WOM Tokens which will be deducted from the income of the content creator. In order to stay

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attractive for content creators in a competitive platform environment, the share must not be set too high.

DApps

DApps designed by the WOM Entity will enable cross-platform integration. Interaction with DApps requires a Web3 browser or a wallet plugin for standard web browsers to sign transactions. The WOM Entity currently plans to release two different open-source DApps to facilitate access to the WOM Protocol for brands and authenticators:



Decentralized Campaign Manager

- Provides an interface for brands to interact with the WOM Economy.
- Supports brand-related content creation and engagement, campaigns can be created by brands, retailers, and marketers.
- Facilitates the creation of campaigns consisting of a budget based on time or engagement KPIs and other criteria that define the content receiving the extra reward.
- Provides a means of analyzing campaigns and other brand-related activities in the protocol.



Decentralized Authentication Manager

- Shows all new content staked from all platforms combined.
- Enables authenticators to see all content pieces that need to be authenticated or validated, bundled from all platforms.
- Facilitates all authentication activities.
- Notifies authenticators of new content to be authenticated.
- Provides an overview of authenticator earnings and analytics tools to optimize earnings.

By definition, the WOM DApps will be open-source to enable developers to build their own custom campaign managers or other apps interacting with the protocol.

Interaction with the WOM Protocol

Content creators and **consumers** interact with the platform to create and consume content.

Brands and retailers interact through decentralized campaign managers to give brand-related content greater weight.

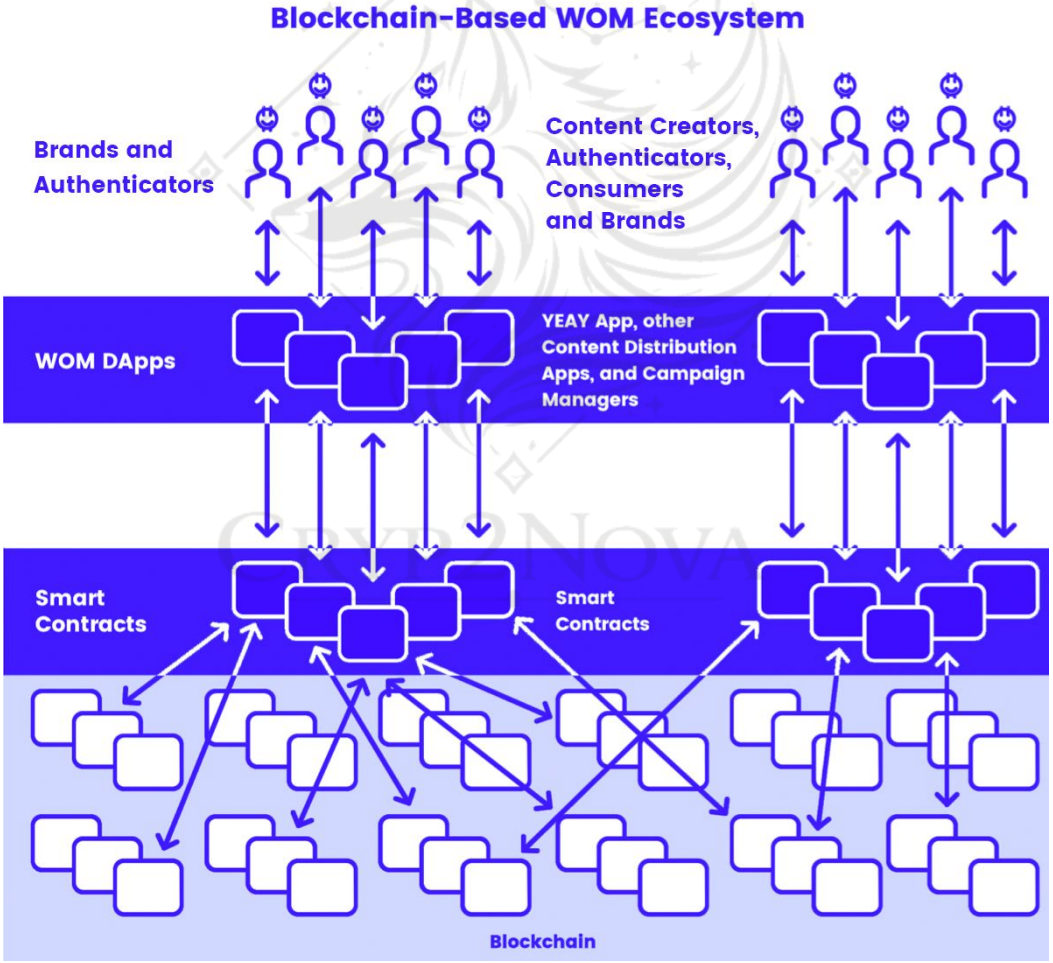
Authenticators act through a decentralized authentication manager which shows all content that needs to be authenticated - independent

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of the platform - and allows the authenticator to perform the task of authentication or validation.

As adoption of the WOM Protocol increases and as a consequence of its open nature, we expect third-party campaign managers and authentication platforms to be built that either operate decentrally or centrally. These campaign managers and authentication platforms will be bound to the protocol through its incentive mechanisms.

Different campaign managers simply provide different interfaces and features that all connect to the same protocol: The WOM Protocol. These campaign manager interfaces will be customized to the individual needs of brands and marketers and will enable brands to connect with the word-of-mouth content published to the blockchain in an easy and user-friendly way. The same is true of the authentication platforms.



Every participant will have a broad variety of centralized and decentralized interfaces to interact with the WOM Protocol. Every

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interface is connected to the same smart contracts and can therefore exchange information with every other interface.

The WOM Utility Token

The native digital cryptographically-secured utility token of the WOM Protocol (**WOM Token**) is a transferable representation of attributed functions specified in the protocol/code of the WOM Protocol, designed to play a major role in the functioning of the ecosystem on the WOM Protocol, and intended to be used solely as the primary utility token on the network. The WOM Token is implemented as a token contract on the Ethereum Blockchain, based on an ERC20-compatible standard such as ERC777. The desired core functionality of the token contract is a decentralized and trustless way of transferring the ownership of WOM Tokens.

WOM Token is a non-refundable functional utility token which will be used as the medium of exchange between participants on the WOM Protocol. The goal of introducing WOM Token is to provide a convenient and secure mode of payment and settlement between participants who interact within the ecosystem on the WOM Protocol, and it is not, and not intended to be, a medium of exchange accepted by the public (or a section of the public) as payment for goods or services or for the discharge of a debt. The WOM Token operates as a value creation incentive to set and maintain a stable value creation within the WOM Ecosystem. This is controlled by smart contracts that define the emission and distribution pattern.

Essentially, the WOM Token enables the WOM Protocol to reward content creators, authenticators, and content distribution platforms for spreading the word about brands, products, and services. This increases the circulating supply of WOM Tokens in a controlled way, while value for all participants is created. The process of rewarding content creation and authentication is similar to the process of rewarding block creation and security for the Ethereum or Bitcoin blockchain (AKA mining).

The WOM Token enables access to this valuable WOM content for brands. Brands can use the WOM Token to create “campaigns” with budgets connected to specific content and interaction patterns. Based on the campaign criteria and the WOM Protocol mechanisms, the token functions as a means for additionally rewarding selected content.

The content must also emphasize the creator’s true excitement for a brand or product. The higher-quality, more honest, and/or more creative

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the content, the more consumers will be reached. This will lead to more interactions with the content and a greater reward in WOM Tokens for the creator.

Token Design and Economy

Token Utilities:

The WOM Token is the most important element of the WOM Protocol and its surrounding economy. It has three main utilities, with various roles and functions within each utility:



Reward unit: Brands, content creators, and content authenticators all use the WOM Token in various ways to reward actions within the decentralized WOM Ecosystem.



Earning rights: Content creators and authenticators need to stake WOM Tokens (as collateral) to make their content available for campaigns.



Governance: Token holders have decision rights in order to influence the most crucial changes to the WOM Token smart contracts.[21] The smart contracts define how the economy works.

Reward Unit Utility



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Various participants within the WOM Ecosystem use WOM Tokens to reward and receive rewards for content creation, authentication, engagement, and other activities. WOM Tokens will be used for:



Value Creation Rewards: Content creators and authenticators are rewarded for participating in the WOM Economy. Content creators receive WOM Tokens for high-quality content that drives

[21] For the avoidance of doubt, the right to vote is restricted solely to voting on features of the WOM Protocol; the right to vote does not entitle WOM Token holders to vote on the operation and management of the WOM Entity or its affiliates, or their assets, and does not constitute any equity interest in the WOM Entity or its affiliates.

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consumer engagement. Authenticators receive rewards for a well-performed valuation.



Brand Love Rewards: A brand or retailer needs to deposit WOM Tokens into a campaign. This enables them to distribute rewards for creation and interaction with honest, product-related content.



Service Fees: A gateway provider or publisher (e.g. YEAY GmbH with the YEAY app and Campaign Manager), collects a fee in WOM Tokens for offering their services and interfaces to interact with the WOM Ecosystem.



Data Rights: A brand or retailer can allocate WOM Tokens for access to user data and reward users who opted in to share their data (in compliance with the GDPR). Users are rewarded with WOM Tokens if they opt in to share their data.

Value Creation Rewards:

The value creation reward is distributed to participants who create value within the WOM Ecosystem. Content creators generate most of the value in the ecosystem. Creators are followed by authenticators, who evaluate the quality of the content.

Through the course of the TGE, 35% of all WOM Tokens are withheld and then emitted over then next 20+ years to incentivize value creation. Details on the distribution of funds are illustrated in the “Value Creation Rewards & Economy Scaling” section of this whitepaper.

An abstract description of the reward function is given in the Content Creators and Content Authenticators sections within the “The WOM Ecosystem” chapter. Full details on the mechanisms are provided in the WOM Economy paper.

Brand Love Rewards:

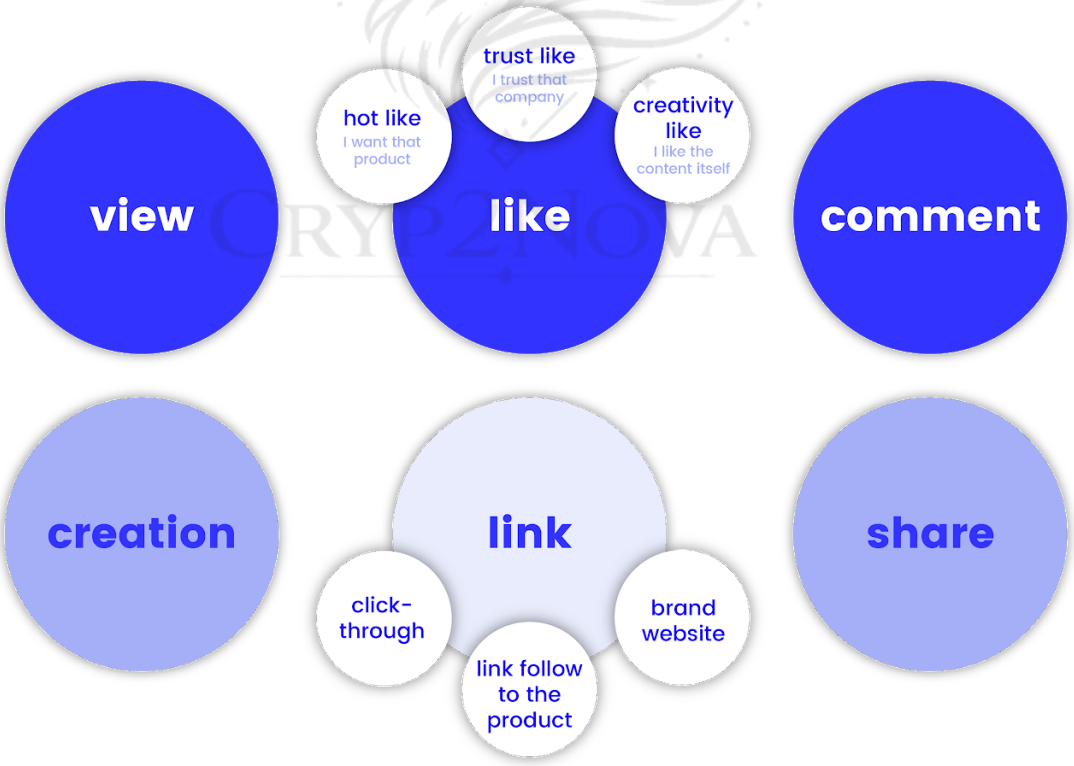
A content creator who creates brand-related, honest, and creative content to express love for a brand or product should be rewarded for their passion, creativity, and reach. This is done via the protocol using the value creation reward. Honest and creative content influences people’s purchase habits and has a high value for the brands and retailers who produce or sell the featured products.

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A brand deposits WOM Tokens and specifies campaign criteria to start a campaign. This results in a marketing budget documented and controlled on the blockchain. The platform can then place a link to the brand's product behind content. This boosts both platform and content creator rewards. Each time consumers interact with the content, WOM Tokens flow from the campaign to the content creator, platform, and the respective authenticators.

Over time, the content—paired with the link to the brand's product—generates brand reach, consumer interactions, and traffic to brand websites. The consumer interactions will be measured. This serves as a basis for rewarding content creators, authenticators, and platforms. The compensation is processed via smart contracts. The exact compensation is determined by other measures, such as the quality of and engagement with the WOM content.

The reward for the content creator is determined based on the quality of the content, engagement KPIs, tokens emitted from the value creation reward, and brand support. From a protocol and brand perspective, content is worth nothing if no one engages with it. The engagement KPIs define the real value of the content and consist of tracking the following activities:



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- View
- Like (trust, creative, hot)
- Comment

If content is also supported by a brand, the following additional activity will be tracked directly by the protocol:

- Click-through

Creating and sharing content will indirectly be rewarded by increasing the engagement KPIs and therefore increasing the payout of tokens for the content creator. Further details on rewards are outlined in the WOM Economy paper.

Service Fees:

Any publisher or developer who builds an interface for the WOM Protocol, can earn a portion of the WOM Token rewards from content creators using their applications. This incentivizes platforms to implement the WOM Protocol and establish a new and non-invasive revenue model for their company.

Additionally, any other developer or startup who builds an interface for the WOM Protocol, can earn fees from application users. For example, when YEAY GmbH builds a Campaign Manager to create a campaign smart contract in a more centralized and user-friendly way, brands will pay a service fee to YEAY GmbH. The service fee is paid in the form of WOM Tokens.

Data Rights:

Brands are highly interested in the demographics and habits of the people who interact (and choose not to interact) with their brand. One key pillar of blockchain-based activity is that it enables users to retain ownership of their content and data. Therefore, brands can use WOM Tokens to gain access to user data by rewarding individual users who have opted-in to share their data with brands.

Earning Rights Utility (Staking)



Another utility of the WOM Token is that it enables creators to earn rewards for their creative and honest content.

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Inherent in the ecosystem is the risk that content creators will spam the campaign manager with content in order to earn WOM Tokens. This could also incentivize fraudulent content creators to perform sybil attacks or hire click farms to earn WOM Tokens and drain the value creation rewards and campaigns.

To prevent spamming the WOM Protocol and to avoid other fraudulent activity, content creators need to stake a specific amount of WOM Tokens to a smart contract as a collateral for submitting the content. This smart contract is created together with the content metadata and the creator's wallet address to enable reward retrieval.

Additionally, campaign managers can retrieve the smart contract details of the content and connect it to a campaign's smart contract. This further increases the weight of the content for receiving rewards.

Reward payments are determined by the rules of the smart contract. They are triggered by the content distribution platform (such as the YEAY app), which acts as an oracle measuring interaction with WOM content. Should content creators cheat the system and hire click farms to view or interact with the content, they lose their collateral and the tokens will be distributed to future honest content creators.

Authenticators decide whether content creators keep their stake. This provides participants with the opportunity to receive rewards in the form of WOM Tokens through consumer interaction with the content, as long as the stake (collateral) is not withdrawn.

Content that is below a certain threshold results in a loss of the stake. The authentication mechanism, therefore, ensures the selection and incentivization of high-quality WOM content. The rating criteria are predefined by the protocol to measure authenticity, creativity, and product-related aspects of the content.

Governance



In order for the WOM Token Economy to survive within the growing and evolving WOM Ecosystem (and other ecosystems around it), initial design is important, but the long term mechanisms for change are the

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most important. In the future when a DAO is created in accordance with the prevailing regulatory environment and no company is in control of the WOM Protocol, changes might need to be enacted to adapt to the growing environments. A cooperative way of making decisions may therefore need to be implemented.

WOM Tokens will inherit the right to vote for these changes putting the token holders in charge of reaching a consensus over changes. Votes will happen in a secure, transparent, and unforgeable way to come to a decision on major economy upgrades or issues using state-of-the-art blockchain governance mechanisms.

Roles of the WOM Token

Role	Purpose	Features
Earning Right	Prevent spam and fraud	Enable content creators to earn tokens from their content by staking tokens as collateral.
Honesty Reward	Economy creation	Enable brands to reward content creators.
Fee	Strengthen the economy	Enable brands to use the services of apps and interfaces (e.g. YEAY app, etc.). Pay for smart contract transaction fees.
Incentive	Increasing user growth	Incentivize value-creating activities of users such as creating great content.
Value Exchange	Near-instant transactions	Payment unit for content rewards.

Economy Value

As the number of participants in the WOM Ecosystem grows, the value of the entire economy inherently increases in several ways:

Network Effect - The total supply of WOM Tokens is fixed and no further tokens will be generated after the TGE. As the number of participants in the WOM Ecosystem grows, so too does the demand for the WOM Token. As more players want the same number of tokens, the demand for a fixed supply increases the value of the WOM Economy. The increase in the number of creators, authenticators, and platforms within the WOM

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Ecosystem also increases the number of brands needing the WOM Tokens to access the WOM content.

Staking Mechanism - Additionally, for the value of the network to increase, there must be an incentive to hold WOM Tokens, which will predominantly function as collateral in order to ensure performance standards. The staking mechanism freezes WOM Tokens which diminishes the circulating supply. The more WOM Tokens are staked, the smaller the available supply and the greater the overall value of the WOM network and Economy.

Technical Roadmap

In the beginning, WOM will test every aspect of the economy rules in a controlled environment before releasing it on the immutable public blockchain. Therefore, the WOM Protocol mechanisms will be deployed on a private Ethereum blockchain with a Proof of Authority (PoA) consensus model.[22]

To achieve a fully-functional and secure protocol, technical implementations have to be staged with different levels of decentralization throughout, leading to true decentralization through three phases. Even though Ethereum's inception was over three years ago, Solidity is still in its early stages. Full on-chain mainnet solutions are therefore not viable due to the transaction speeds and costs.

It is also essential to test every aspect of the economy rules in a controlled environment before releasing it on an immutable public blockchain. Therefore, initially the WOM Protocol mechanisms will be implemented in a completely centralized environment. A private Ethereum chain will be set up in the first stage specifically for data interactions: Only WOM Token transfers will occur on Ethereum's mainnet.

Phase One: Private Blockchain

Before beginning phase one, the WOM Token smart contract will be deployed on Ethereum's mainnet with integration into the YEAY app. The app will have a built-in, open-source wallet generation for users and YEAY will have no knowledge of the private keys randomly generated. YEAY will only have visibility of the associated public Ethereum address (public key) in order to connect it to the WOM Protocol.

[22]For more information on Proof of Authority: https://en.wikipedia.org/wiki/Proof-of-authority

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This wallet integration will be built in a modular fashion and will allow any future or current partners to easily integrate the WOM Token wallet and WOM Protocol into their applications. An SDK will be available for IOS and Android applications.

In addition to wallet integration for any further partners, an MVP of the WOM Protocol (built in Solidity) will be run on the Ethereum mainnet. Since Ethereum does not have the necessary scalability required for WOM Token to run in a fully-decentralized way in the beginning, an isolated private Ethereum fork with a PoA consensus model will be set up and managed in-house by the WOM Entity, YEAY, and other carefully-selected trusted validators. This solution will combat scalability issues and handle all data modifications such as creating content, content authentication, and the campaign manager.

To enable the PoA chain to handle all WOM Protocol computational data and mainnet WOM Token transfers, the PoA chain and the mainnet chain will be connected using Parity's pre-existing bridge framework.[23] This bridge enables data to be transferred between both chains and the computations.

Data can also be executed on either chain depending on the importance of the transaction. Interval IPFS hashes can be made of each chain's state in order to publicly show that the data is being properly transferred between both. This validates the correct transfer of data and any subsequent interactions.

Building a private blockchain helps solve two challenges:

First, the complexity of the economy increases the risk of malicious attackers finding loopholes in the design. Therefore, the ability to revert malicious transactions before they settle on the immutable mainchain and to be able to fix the loopholes to reduce the attack vectors is needed.

Second, the issue of scalability can be delayed until after fundamental research has been conducted. This includes the decisions to set up plasma operators, plasma-cash operators, state channels, whether particular transactions should be handled on stellar, and so on.

In phase one, the benefits of bridging Ethereum's mainnet and a private Ethereum instance with PoA implementation are:

[23] https://github.com/paritytech/parity-bridge

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- a reduction in transaction costs.
- an increase in transaction speeds.
- a controlled environment to ensure reversibility of malicious transactions.

The downside is that users must trust the WOM Entity, YEAY, and other validators to always act in the common interest, as these entities have full control over the private blockchain running the economy mechanisms.

Phase Two: Mainchain Scaling Solutions

In phase two, our primary focus is to continue research and integration of well-known scalability solutions when they have been fully developed and tested.

One solution for improving scalability is the implementation of State Channels specifically for micropayments. Instead of emitting all transactions on-chain - which incurs high transaction fees - two parties can agree to a state channel on-chain and then sign transactions off-chain.

For example, if Alice and the WOM Protocol come to an agreement over quality content that meets set engagement metrics, Alice will be rewarded with ten WOM Tokens from the value creation fund.

If all engagements were to take place on-chain, Alice's income would be eaten up by fees – roughly 20%. Yet Alice does not want to do the work without knowing that the WOM Protocol will not pay her. Equally, the WOM Protocol does not want to give Alice all the tokens just in case she disappears and does not do any work.

In order to solve this issue, we can create a payment channel that locks WOM Tokens inside a State Channel smart contract. The only possible recipient of these tokens is Alice - otherwise they are returned. The WOM Protocol commits the ten WOM Tokens inside of the smart contract and Alice is notified that the funds have been deposited.

Each time Alice creates quality content and generates engagement, Alice is rewarded a particular amount of those WOM Tokens, and the WOM Protocol signs a hash of that particular reward with their private key, e.g. one WOM Token plus the contract address. The hash that has

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been created by the WOM Protocol will be sent to Alice, and Alice then signs the hash off-chain with her private key.

If Alice wishes to withdraw her funds at any point, she submits the multi-signed hash to the smart contract and the smart contract sends the value that is stored inside of that hash to Alice. Any remaining funds will be sent back to the WOM Protocol.

This whole system is a version of multi-signatures and all of the signatures can be cryptographically proved on-chain without having to execute each microtransaction on-chain. We may choose to use our own State Channel implementation or use a well-known service, such as Raiden Network,[24] or CounterFactual,[25] once they have been fully tested and deployed.

Other solutions such as Polkadot,[26] Plasma,[27] and Plasma Cash[28] will be researched and tested to find the most suitable and efficient solution to improve scalability of the WOM Protocol.

Adoption of the WOM Protocol

Over time as scalability is solved, more and more platforms will connect to the WOM Protocol. This creates a network effect, which strengthens the economy. In this manner, a decentralized ecosystem is created that does not depend on just one interface to provide a gateway, but instead relies on many gateways.

These diverse gateways to the core protocol will each have their own purposes and advantages. The variety of service providers can work together or compete with each other to provide the best possible service also named “coopetition.”

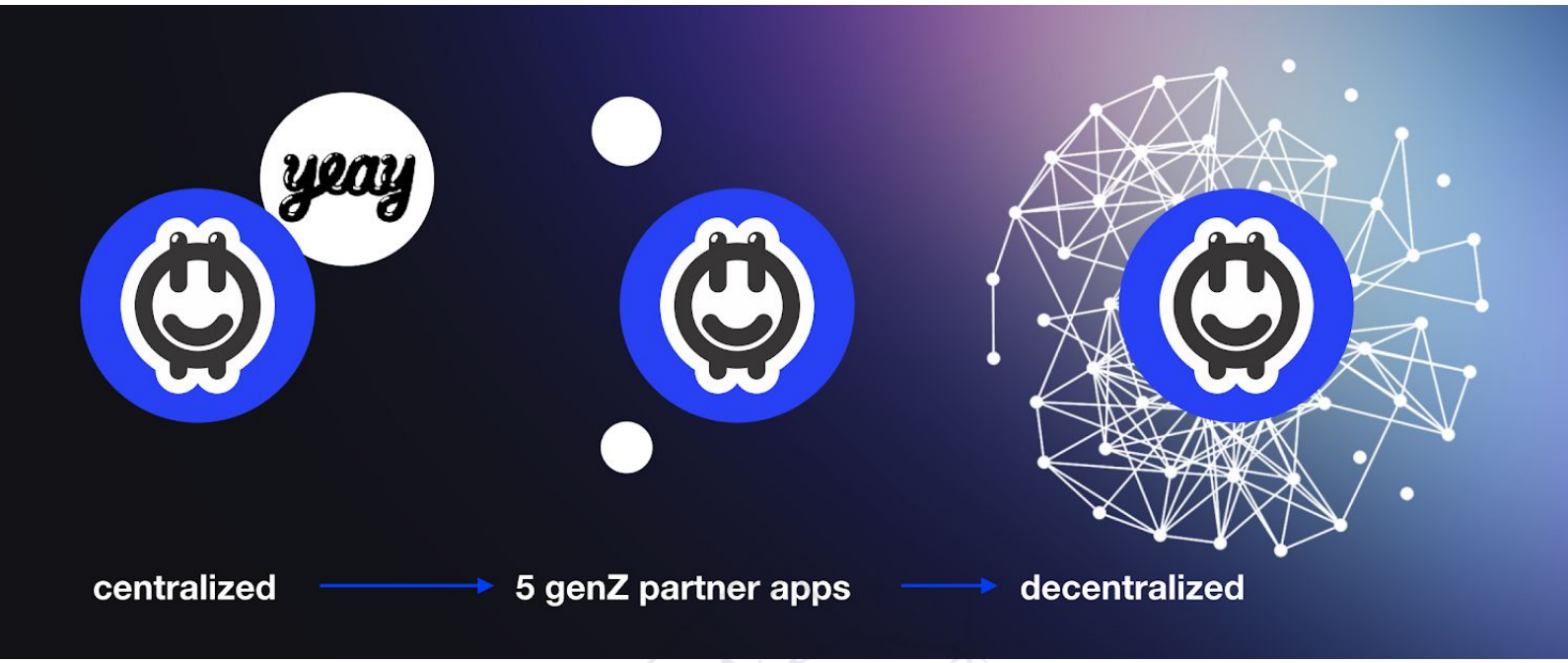
The long-term goal of the WOM Entity is to continually evolve and make the WOM Platform increasingly decentralized.

Phase Three: The DAO

Prior to phase three, WOM Protocol Pte. Ltd. will transition the management leadership of the WOM Ecosystem to a not-for-profit WOM Foundation. The WOM Token will then have inherent governance functions to ensure a smooth transition so that the WOM Protocol

[24] https://raiden.network/
[25] https://counterfactual.com/
[26] https://polkadot.network/
[27] https://plasma.io/
[28] https://github.com/loomnetwork/plasma-cash

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becomes a DAO that cannot be controlled by the WOM Foundation. Instead, the users of the platform maintain control through a governance model. Whether this governance model utilizes Aragon[29] or any other advanced technologies that emerge, the end result will be that a true consensus model is created.

Currently, the term “DApp” is widely used within the blockchain ecosystem, and it is used incorrectly. The term “DApp” implies a true decentralized application that cannot be controlled by any party.

In this phase of DApps, many blockchain companies are integrating upgradability features into their smart contracts using a Contract Manager to handle the association of smart contract addresses to the correct smart contract name. If a vulnerability in a smart contract is found, the address of the associated smart contract is updated to point to the newly created smart contract that does not contain any vulnerabilities.

While this is an innovative tactic, it is not true decentralization. The organizations that submitted these smart contracts are in control of the Contract Manager and can change the associated addresses at any point. If a malicious individual was part of the controlling organization, they may point to a smart contract that benefits only themselves.

At WOM, we are striving toward truly decentralized applications. The WOM Protocol is not in control of upgrading the associated smart

[29] https://aragon.org/

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contract addresses without the user base coming to a consensus that there is a clear vulnerability in the contract's code.

We will explore how to accomplish this in phase three. However, we will use an ongoing bug bounty to reward users for finding vulnerabilities. If a true vulnerability is validated by an external smart contract security team, the users can come to a consensus to upgrade the smart contract address.

Additionally, the WOM Foundation will use the learnings from phases one and two to optimize the incentivization design and reward users that are involved in this consensus model. This will help improve the WOM Protocol to prevent all possible attack vectors.

Organizational Structure

WOM Protocol Pte. Ltd.

WOM Protocol Pte. Ltd. will kickstart the WOM Ecosystem and build a strong and self-sustaining new microeconomy for brands and their fans.

WOM Protocol Pte. Ltd. will mint and sell the WOM Tokens and administer the initial token supply and distribution. It will also provide the funds and tools needed to develop and operate the administrative and technical layers of the WOM Token economy.

It is anticipated that after generating WOM Tokens, WOM Protocol Pte. Ltd. will pass the leadership role of the WOM Ecosystem to an independent WOM Foundation - a not-for-profit entity designed to look after and support the WOM Ecosystem.

The initial technical layer developed by WOM Protocol Pte. Ltd. will be the basic WOM Protocol. A decentralized campaign manager and authenticator platform will be developed to interact with the protocol and enable the WOM Economy to thrive. This campaign manager and authenticator platform DApps, by definition, will be open-source and available to any brand or marketers in the WOM Ecosystem to use, modify, adapt, and customize for their own purposes.

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YEAY GmbH

YEAY GmbH will play a key role in establishing the WOM Ecosystem as its founding member, by creating its construction and token-generating entity - the WOM Entity - and providing its first user interfaces.

The YEAY app will act as a Content Distribution Platform (CDP) for content creators and their audiences.

The YEAY Campaign Manager - built on the WOM Protocol DApp - will provide premium services for brands to interact with the ecosystem.

YEAY GmbH and its services will enable the first users to interact seamlessly and easily with all important aspects of the WOM Economy and lead the growth of the WOM Ecosystem.

The YEAY Campaign Manager, owned and operated by YEAY GmbH, will be the first full-service campaign manager built on the WOM DApp in the WOM Ecosystem. It will be the point at which brands connect their products and services with content creators in the WOM Ecosystem using the WOM Token.



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Through the YEAY Campaign Manager, brands and marketers can view, search, and incentivize content about their brands, products, and services. Initially, as users upload content through the YEAY app, they will tag relevant products in their videos. In the future, additional features are possible such as AI, which would automatically identify and label the products featured in content so that brands can easily search for and identify relevant content for their campaigns.

All user and content creator tokens used in the YEAY app will be managed in non-custodial user wallets. Users have full control over their Ethereum address and corresponding private key within the YEAY app.

Since the WOM Economy will be the first experience many brands have with tokens, YEAY GmbH will hold and be the custodians of the brands' tokens. Brands will interact with the YEAY Campaign Manager in fiat currency and YEAY GmbH will facilitate the movement of tokens from the brand accounts to users.

Decentralized Autonomous Organization

Future governance of the WOM Ecosystem will be decentralized and facilitated by a not-for-profit foundation.

WOM Protocol Pte. Ltd. will be dissolved and no changes and improvements will be made by a single, controlling entity. WOM Protocol Pte. Ltd. will convert to a non-profit organization and/or, ultimately, transition the WOM Platform to a fully-decentralized and autonomous organization (DAO) built on blockchain technology with increased opportunities for trustless automation. The decentralized WOM Ecosystem will have the ability to decide what changes need to be made in order to further evolve long-term.

Votes by WOM Token holders to change the WOM Ecosystem will happen in a secure, transparent, and unforgeable way to come to a decision on major economy upgrades or issues.

Competitors

A competitive analysis shows that no competitor ensures the trustworthiness of content. No competitor has developed an incentive model which is authenticated and validated by the community. Yet

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consumers demand high-quality and trustworthy content. WOM is the only solution that serves this demand.

Furthermore, most of the competitors do not provide a protocol which is a necessity for decentralization. Per Vitalik Buterin, the defining criteria of a protocol is that a third party may independently develop a client for the protocol and do everything that the "official" client can. The following section presents the closest WOM competitors, including their main similarities and differences with WOM.

2key

2key rewards referrals that led to conversions. More precisely, 2key tracks word-of-mouth content and subsequent conversions with smart contracts over the information flow from sender to receiver. In case a referral link results in a conversion, the referrer receives a reward. This reward is again triggered by a smart contract.

The main difference to the WOM solution is 2key's focus on conversion. WOM on the other hand rewards any qualitative WOM content which has resulted in high engagement.

Mithril

Mithril is a decentralized social media platform that rewards content creators based on views, likes, and watchtime of their created content. Through this engagement, MITH token are generated out of thin air.

Mithril is much like a very basic version of WOM. Both concepts reward content creators for their content. However, WOM merely kickstarts the creation through mining WOM tokens out of thin air. Sustainable value creation is enabled through the inclusion of brands into the value chain. In addition, WOM provides a whole authentication market whereas MITH is dependent solely on engagement KPIs.

ASQ protocol and the Kin Ecosystem

The ASQ protocol provides a marketplace where content creators can upload their content and sell it to consumers. The content is only accessible once the consumer has paid for it. The system works in a similar way to the paid quality tests that can be downloaded online.

The Kin Ecosystem creates an open ecosystem of tools that are embedded into digital communication services. One use case is the

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integration of paid content in a chat app which can be accessed only with Kin Tokens.

The main difference between the ASQ Protocol and the Kin Ecosystem versus the WOM Protocol, is that content is not provided for free. This massively inhibits interaction with the platform. In addition, brands are not included in the system. WOM provides a holistic approach in which content is provided for free and financing is achieved indirectly with brands.

Fanfare and Friendz

Fanfare is a video-sharing app for fans to connect with brands. Fans upload a brand-related video to "become a star." This entitles them to social rewards for good videos and enables them to earn "diamonds" that can be exchanged with goods from brands. At a later stage, fans may be selected to work for particular campaigns set by brands.

Friendz works in a very similar way. The only difference to Fanfare is that brand-related pictures are uploaded instead of videos. For doing so, the user receives a reward.

The main difference between both concepts and the WOM Protocol is that in these solutions only content that is connected to a prepaid brand campaign can earn rewards. This makes the videos sponsored and therefore inauthentic and dishonest.

Plentix

Plentix provides a platform for companies to build referral programs. Referrers receive discounts on products for the referrals they make.

The referrer's reward is completely sponsored which undermines trust. This is in contrast to WOM's key advantage: the guarantee of trustworthy content.

GIFTO

Gifto builds a protocol through which the work of content creators can be appreciated with gifts in form of GIFTO Tokens. This functions like a small donation.

There is no reason why these donations should not be paid in any other currency such as Bitcoin. The only advantage of GIFTO is the fun aspect

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since gifts can have different forms. However, the gifts are eventually always exchanged into GIFTO Tokens.

Jet8

Jet8 rewards users for sharing their selfie with brand ads incorporated into the picture.

Jet8 is very different to WOM since high-quality WOM content must include a profound recommendation for a product which goes beyond the brand icon and some ad-like words attached to it.

Other Influencer-Focused Competitors

Unboxed is a matching service that brings influencers and companies together. Their slogan is: “We are a blockchain based network of millions of people who get paid to post on Facebook, Twitter etc.” Adhive provides a similar model, however, the matchmaking takes place using AI. IndaHash and Influencechain provide a currency for rewarding influencer activities through the tokenization of influence. Whyral ranks influencers using AI and subsequently matches companies with influencers.

In all the above services, influencers gets paid upfront for spreading brand recommendations. Such sponsored posts undermine honesty. In the WOM network, such content would not be rated as high quality content since it is not authentic.

Summary

Sponsored content is compromised and therefore cannot be considered honest. The same holds for concepts in which content is not available for free. A decentralized authentication consensus indicates positive value as it may ensure decentralization and trustworthy content. Therefore, the absence of such a mechanism is considered as negative.

Many competitors offer either influencer matching or merely a currency. Influencer matching isn’t performed on the blockchain and does not ensure the principles of trustlessness. Any competitors that merely provide a currency are not direct competitors as this could also be implemented with Bitcoin, stable coins, or other more established solutions.

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Projects	Trustworthy content (not sponsored)	Free content	Protocol	Distributed Validation Consensus	More than influencer matching	Token has utility
2key		x			x	x
Adhive		x				x
ASQ protocol	(x)				x	x
Fanfare		x			x	x
Friendz		x			x	x
GIFTO	(x)	x			x	
IndaHash		x			x	
InfluenceChain		x			x	
Jet8		x			x	x
Kin Ecosystem	(x)		x		x	x
Mithril	(x)	x	x		x	
Plentix		x	x		x	x
Unboxed		x				x
Whyral		x				x
WOM	**x**	**x**	**x**	**x**	**x**	**x**

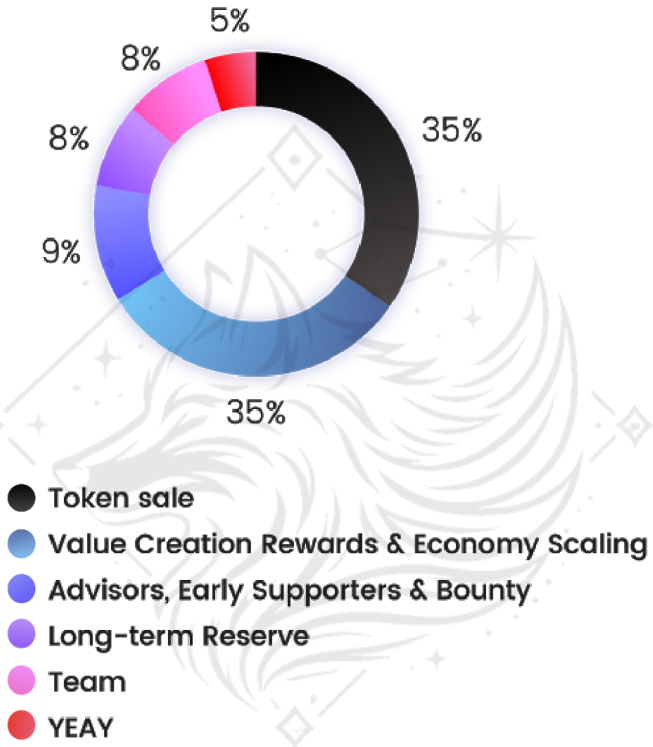
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WOM Token Distribution

WOM Protocol Pte. Ltd. will issue a total of one billion tokens in a TGE to be used within the WOM Ecosystem. The WOM Token has eighteen decimal places to enable nano transactions.

After the initial TGE, no further tokens will be created. The tokens will be distributed in the following manner:



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Token Sale

In order to fund the development of the WOM Protocol and its Ecosystem, WOM Protocol Pte. Ltd. will sell 35% (350 million) of the one billion total tokens. The generated revenue from selling the WOM Tokens will be used to fund the technical development of the WOM Economy and the first interfaces.

WOM Protocol Pte. Ltd. will expand its code team and hire contractors to build all essential parts of the economy. The main contractor will be YEAY GmbH. YEAY GmbH will help to create the Ethereum smart contracts, the WOM DApps and handle all the marketing, legal, and development operations of the initial WOM Ecosystem.

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The first token buyers take an important position in kickstarting the community by funding the initial development. They not only provide the funds to enable WOM Protocol Pte. Ltd. to build the economy, but they also give the WOM Token its initial value.

As most initial token holders are not typical users of the WOM Economy, their overall stake must not be too high. If the stake of WOM Tokens controlled by any one type of participant is too high, the actual token flow and the whole economy could be at risk.

Value Creation Rewards & Economy Scaling

The WOM Protocol uses blockchain as an incentive machine and has a token distribution designed accordingly. Similar to the "mining" mechanism in Bitcoin, which incentivizes businesses and individuals to invest energy in order to receive Bitcoin Tokens, the WOM Protocol incentivizes individuals and platforms to create and distribute word-of-mouth content.

In the Bitcoin Protocol, the secure block space is the valuable asset being created and someone can only access the block space using the native Bitcoin Token. In the WOM Protocol, the created word-of-mouth content, which is being consumed, is the valuable asset which then can only be accessed by brands using the native WOM Token.

To create network value, the WOM Protocol incentivizes content creators to create and distribute word-of-mouth content by giving out WOM Tokens - the value creation reward. Of the total number of tokens minted, 35% are reserved for value creation rewards and are distributed to the creators, authenticators, and content platforms who use the WOM Protocol and create value in terms of WOM content.

The total **350 million WOM Tokens** (35% of the total supply) will be emitted by the WOM network over time to all authenticated WOM content, based on the content engagement KPIs. The emission of the rewards will follow a bounded exponential curve according to the following formula:

$$M = 1 - 0.5^{\left(\frac{t}{H}\right)}$$

Where:

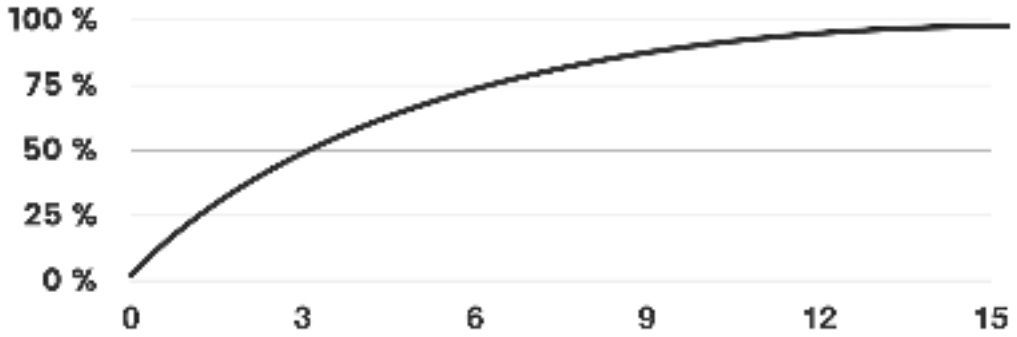
M = Cumulative tokens issued via content engagement rewards

t = Time (years)

H = Half-life in years

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The WOM protocol will emit 50% of content engagement reward tokens in 3 years.



Year	Total tokens emitted (%)	Total tokens emitted (Million)	Total tokens remaining (Million)
3	50%	175.00	175.00
6	75%	262.50	87.50
9	87.5%	306.25	43.75
12	93.8%	328.30	21.70
15	96.9%	339.15	10.85

Additional Token Allocations

Advisors, early supporters, and ambassadors receive 90 million tokens. Current and future team members receive 80 million tokens. The WOM Entity will also hold 80 million tokens in reserve to be utilized on an adhoc basis.

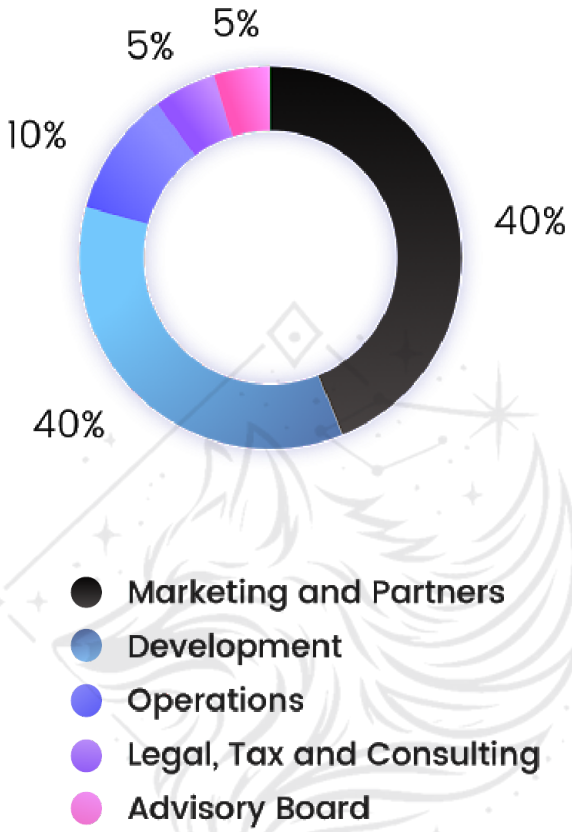
The remaining 50 million tokens will be allocated to YEAY GmbH as the founding member of WOM Protocol Pte. Ltd. In exchange, YEAY GmbH contracts to integrate with the WOM Ecosystem by adopting the WOM Token and providing business development, marketing, technology development, legal, and executive resources to build the WOM Protocol and Ecosystem.

There will be a one year lock-up period for all tokens given to advisors, ambassadors, and team members in order to prevent inflation.

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Use of Token Sale Funds

The funds raised will be allocated as follows:



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Team



Melanie Mohr
CEO

Melanie Mohr is a Berlin-based digital media entrepreneur with 20 years of experience in editorial strategy, content creation, digital marketing and mobile applications. In 2016 she founded YEAY - the leading video m-commerce platform providing GenZ with a space to share and shop. In 2018 she became the founder and CEO of WOM Protocol Pte. Ltd., the blockchain company helping brands tap into peer-to-peer recommendations.



Chris Hardaker
Head of Product

Chris Hardaker has more than 30 years' experience in technical and product roles across a diverse range of industries. From medical devices to privacy and security, Chris' background brings a range of skills and knowledge to apply to the complex YEAY and WOM solution.



Jeremy Lindström
Lead Project Manager

Jeremy Lindström is a tech entrepreneur helping startups develop business plans and market entry strategies. He also has a strong digital marketing background, having worked for marketing agencies and in-house for brands such as L'Oreal UK. Jeremy has an MBA from the University of Oxford and is a World Champion jump roper.



Francis West
Lead WOM System Architect

Francis West started coding at age 6 and has coded 60,000 hours. He has built systems for hedge funds, banks, websites, hardware manufacturers. He also built and designed englishforums.com with 250,000,000 visitors and Frogbox--a prototype of a fully decentralized package and software deployment system based on IPFS and the first decentralized app store of its kind.



Vivienne Rudcenko
Communications Manager

Vivienne Rudcenko is a content and communications specialist with over ten years' experience in PR, social media, and marketing. She has worked for global as well as boutique London marketing communications agencies, developing campaigns for clients including Vodafone, Sony, BlackBerry and Lenovo. She has also managed the brand voice and communications for startups in the emerging Berlin tech scene.



Alexander Yasko
Lead Software Engineer

Alex Yasko is a full-stack software engineer who has successfully delivered many products including e-commerce websites, desktop apps, and embedded safety-critical systems. He has experience in all aspects of the software product lifecycle and has also published a number of scientific papers in the field of systems safety and reliability assessments.

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WOM Advisors



Björn Wagner
Co-founder, Parity Technologies

Björn Wagner is a co-founder of Parity Technologies, the world's leading blockchain technology provider. Currently serving as Chief Commercial Officer, Björn is driving the company's commercialization and product strategy. He is an engineer by training and has a deep understanding of technologies and applications in the fields of decentralized web software protocols.



Sasha Borovik
CEO, Triple Door

Sasha Borovik is a Harvard Law graduate and international attorney and entrepreneur. He has lead the legal and growth strategies for tech companies such as Microsoft and Akamai and handled major technology deals with NATO, UN, the EC, Red Cross, and European Space Agency. Since his early days at Microsoft, he has developed expertise in decentralized communities, crypto-economics, and blockchain law.



Richard Wang
Partner, DraperDragon Fund

Richard Wang is a Blockchain Advisor and partner at DraperDragon Fund. He has over 20 years of business development, technical marketing, and sales management experience in the technology space. Prior to DFJ Dragon Fund, Richard served as QunZhong E-Commerce's CEO and successfully opened up the market, while developing the franchise channel.



Daniel Wingen
Blockchain Economics Designer

Daniel Wingen is a cryptopreneur and token engineer with five years' experience in the Blockchain world. He founded BlockKeeper, the most secure and privacy-oriented app for managing crypto assets. Daniel uses his experience in analyzing whitepapers and his economics background to design crypto economies in order to lay the infrastructure for sound, decentralized, economic cooperation on the blockchain.



Timothy Armoo
CEO, Fanbytes

Timothy Armoo is the 23-year-old CEO of Fanbytes, a video influencer company helping the world's largest brands like Universal, Warner, and Apple Music reach Gen Z on Snapchat and Instagram. Fanbytes is Tim's 3rd company. He started his second company at age 17 which sold to a media company in 11 months.



Michael Spencer
Blockchain Marketing Consultant

Michael Spencer is a marketing consultant and one of the most active blockchain writers on Medium. With a significant interest in both generational trends, retail & mobile trends, as well as blockchain and crypto innovation, Michael writes frequently about the new consumer. With UGC and decentralization happening, it's only a matter of time before worlds collide.



Kwasi Asare
CEO, Fighter Interactive Inc.

Kwasi Asare started his career as an investment banker at Citigroup. He became the New Media Director for Sean "Diddy" Combs' Bad Boy Entertainment and executed global marketing and business development campaigns for: Prince, Pharrell, Outkast, Google, Diageo, Sony Music, Apple, Universal Music, and Warner Music.



Stefanie von Jan
Token Engineer

Stefanie von Jan is an experienced entrepreneur and blockchain researcher. She has successfully founded a decentralized social startup for cross-border collaboration while finishing her master's degree in technology management with a focus on finance and IT. After conducting profound research on the disruptive potential of blockchain technology, she set her focus on token engineering.

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Alemsah Ozturk
CEO, 4129Grey

Alemsah Ozturk started his first agency when he was 20 years old. He has since founded 4 agencies, 4 startups, and helped more than 20 entrepreneurs succeed with their startups. His current agency 4129 was acquired by WPP and transformed into a full service agency. He is very active in the Blockchain scene helping startups with their marketing efforts.



Adrian Wons
Head of ICO Competence Center, Ernst & Young

Adrian Wons is leading the ICO Competence Center for EY in Berlin. He was involved in several ICO projects in Germany and is the author of the book "Initial Coin Offering" published by SpringerGabler. He holds an M.Sc. in Mechanical Engineering.



Jens Willemen
Co-founder, Kairon Labs

Jens Willemen is in charge of both "business as usual" and strategic planning at Kairon Labs. Previously Jens was Head of Advisory at a small crypto-focused VC in Switzerland, as well as Senior Advisor for AXA Belgium. He is also currently an advisor at DocDoc, one of Asia's leading healthcare startups.

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