CanYa

Ecosystem Paper

The decentralised service place for the world.

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This paper describes the current vision for the CanYa Platform. While we intend to attempt to realise this vision, please recognise that it is dependent on quite a number of factors and subject to quite a number of risks. It is entirely possible that the CanYa Platform will never be implemented or adopted, or that only a portion of our vision will be realised. We do not guarantee, represent or warrant any of the statements in this paper, because they are based on our current beliefs, expectations and assumptions about which there can be no assurance due to various anticipated and unanticipated events that may occur. These events may include further regulations or legal advice that require CanYa to obtain relevant licenses and approvals.

There are several references throughout this paper to features being '... integrated', 'under development' or '... planned'. These references are for informational purposes as to the CanYa vision only and are not representations or warranties to the effect that those features are currently integrated or will be integrated in the future. Additionally, several references appear throughout this paper to certain features being '...subject to regulatory approval'. CanYa will attempt to obtain all relevant licenses and approvals if and when required, and will only implement such features once such licenses or approvals have been obtained. However, CanYa does not represent, warrant or guarantee that such licenses or approvals will be obtained and that any features described in this paper will be implemented.

Please know that we plan to work hard in seeking to achieve the vision laid out in this paper, but that you cannot rely on any of it coming true. Blockchain, cryptocurrencies and other aspects of our technology and these markets are in their infancy and will be subject to many challenges, competition, regulation and a changing environment. We will try to update our community as things grow and change, but undertake no obligation to do so.

Interested parties acknowledge that the CanYa Platform, as described in the CanYa whitepaper, may never in fact operate as intended. **A CanYaCoin is intended solely as a mechanism for using the services offered through the CanYa Platform.** CanYaCoins are not for speculative investment. No promises of future performance or value are or will be made with respect to CanYaCoins, including no promise of inherent value, no promise of continuing payments, and no guarantee that CanYaCoins will hold any particular value. CanYaCoins are not participation in the Company and hold no rights in said company. All proceeds received by the Company may be spent freely by the Company absent any conditions.

1. EXECUTIVE SUMMARY

CanYa is an open ecosystem of decentralised applications (CANApps) for peer to peer services, built using core infrastructure and connected and powered by a single decentralised autonomous organisation - the CanYaDAO. Each CANApp exists in the ecosystem for the sole purpose of driving value, such that the whole is greater than the sum of its parts. Ultimately it is envisaged that any third party can apply for funding from the CanYaDAO, build a CANApp easily and quickly using ready-made Core infrastructure, and deploy the CANApp globally using the DAO as an on-demand scalable operational and support backend. Each CANApp will maintain an internal budget to pay for maintenance and on-going development, and the best CANApps will prosper.

CANApps cover all aspects of marketplaces and will initially be funded and built by the CanYa team. Core infrastructure to build the ecosystem is a stack of open-source frameworks, templates and contracts and called CanYaCore, allowing any developer to easily create a CANApp and attach it to the ecosystem. Core infrastructure includes the hedged escrow, payments, identity management and skill attestation.

Most importantly, the CANApp will be serviced by the CanYaDAO, where not only is initial funding available, but the CANApp can access a highly-scalable business and support backend. CANApps can split up areas of management, maintenance and governance into micro-tasks, and submit them to the CanYaDAO. The CanYaDAO will handle the completion of tasks by funding them and allowing anyone in the DAO to complete the tasks. As the CanYaDAO is permissionless (anyone can join), the CanYaDAO incorporates game-theory mechanics and the necessary crypto-economics to ensure task completion to a required standard with adequate prioritisation, as well as the correct governance and bad-actor management.

The CanYaCoin (**CAN**) powers the platform's payment system, enabling a decentralised, trustless and hedged escrow service, a bridge between fiat and a variety of cryptocurrencies, and a powerful rewards system to encourage network effects. The CAN token is also the token that powers the CanYaDAO and provides value to incentivise a decentralised taskforce to support the CANApps.

The final outcome is an autonomous ecosystem that is self-funded, self-sustaining, and caters for a global permissionless user base of digital nomads, freelancers and marketplace users.

2. KEY COMPONENTS

2.1. OVERVIEW

The CanYa ecosystem has three key components; CANApps, CanYaDAO and CanYaCore, an open-source collection of key infrastructure needed to power the ecosystem. CANApps are discrete decentralised applications built using web3 technologies and target key niches and verticals in the global peer to peer services industry. Examples are CANServices for digital service marketplace and CANTask for local services. The CanYaDAO forms the scalable and decentralised support, maintenance and governance backend to each CANApp. Finally the CanYaCore components are used as the fundamental building blocks of the ecosystem, such as the escrow, identity management and support tasking components.
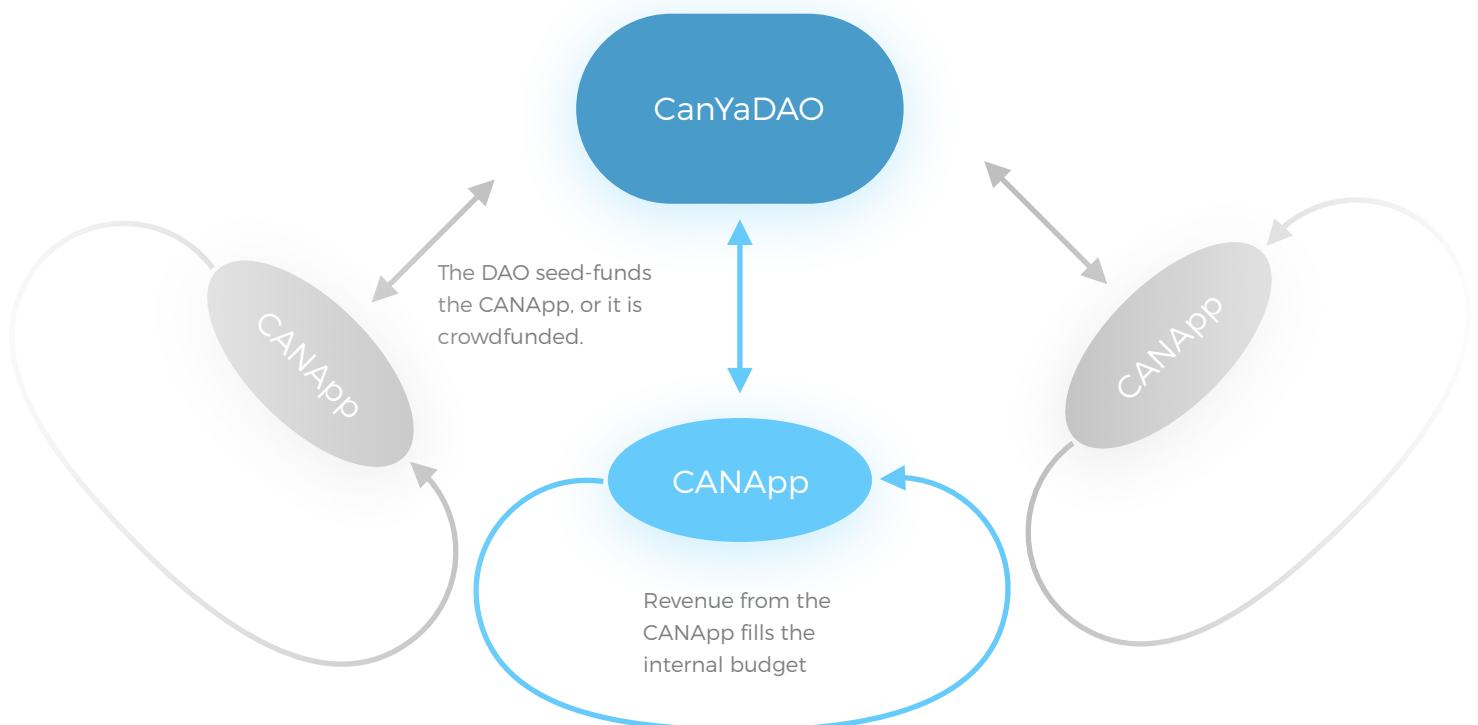
The following is an overview:

2.2.   COMPETITIVE ECOSYSTEM

Each CANApp is "seeded" in funding by the CanYaDAO and has an internal budget that pays for development and maintenance through the CanYaDAO micro-tasks. Each CANApp must have a monetisation strategy that attempts to fill up the internal budget as it is depleted. Various monetisation strategies will be available.

A third-party may seed and build a CANApp, and they are entitled to pay themselves from the internal budget. They also may apply for crowdfunding by submitting a CANApp idea, and if it is popular, it will achieve crowd support. Once funded, the third party will be paid through the internal budget.

A key fundamental is that each CANApp is competitive and has to provide on-going value addition to the ecosystem, else their internal budgets deplete and they terminate. In this way, each CANApp is incentivised to create value and achieve product-market-fit, and if they do their internal budgets will continue to fund support and on-going development. Each CANApp attempts to increase its own budget by having its own revenue source.

This methodology mimics thriving ecosystems such as forests and coral reefs, where the strongest, smartest organisms survive. By reducing the time it takes to deploy a CANApp (re-useable code), the cost of maintaining a CANApp (micro-tasks from the CanYaDAO), and increasing the number of people who can deploy a CANApp (open-source code and frameworks), it is envisaged that there will be hundreds, if not thousands of CANApps deployed into the ecosystem. Most may not survive, but those that do will be supported and backed by the wealth of knowledge and experience from the entire ecosystem and will be stronger than any equivalent centralised version.

CanYaDAO

The DAO seed-funds the CANApp, or it is crowdfunded.

CANApp

CANApp

CANApp

Revenue from the CANApp fills the internal budget

3.   CANYACOIN

The CanYa ecosystem has a single currency: the CanYaCoin. The CAN token is an ERC-20 compliant token with the following characteristics.

Contract Address	0x1d462414fe14cf489c7A21CaC78509f4bF8CD7c0
Decimals	6
Supply	100,000,000
Ticker	CAN
Name	CanYaCoin

The CanYaCoin has the following distribution, with over 67,000 public token holders. Burnt tokens are sent to the [0x0...dead] address
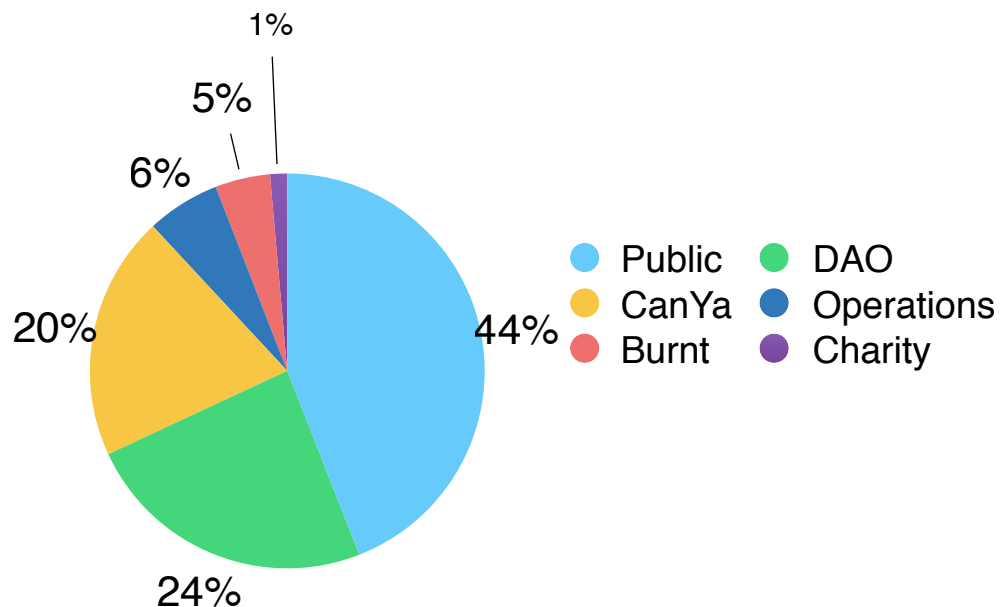
The following is the purpose of the token:

(1) A consumptive use token for providers to access premium features in the ecosystem.
(2) A token to reward users who participate in the DAO, contributed to them when they perform certain activities in the DAO.
(3) A medium of value exchange allowing providers to invoice their services in CAN tokens across CANApps.
(4) A store of value, allowing providers to retain payments in the CanYa wallet.

4. CANAPPS

CANAPPS

TOOLS BUILT ON DECENTRALISED TECHNOLOGIES. BUILT FOR EVERYONE.

4.1. CANAPPS LITE

CANApps Lite are lightweight decentralised applications that perform a specific task, but have low dependency on the ecosystem and can be used by anyone. They are positioned to share the benefits of decentralised technologies with the wider community by having very low barriers of entry.

They augment the CanYa ecosystem by demonstrating utility of the CAN token as well as being a funnel for new CanYa members; "come for the tool, stay for the ecosystem". All CANApps are free to use, but are monetised by either being freemium or connecting to the CANAds network. In this way they continue to increase their own internal budget by presenting value and cycling revenue through the ecosystem.

Some of the technologies used by CANApps Lite are Web3 injection, IPFS for storage and Ethereum for verification and authentication. Where the CAN Token is involved, Bancor integration is provided to a seamless conversion into the CAN token from all supported tokens.

For an engaging interaction, CANApps Lite may also feature CANHelp, a chat-bot serving helpful tips as well as having a direct connection with the CanYaDAO for 24/7 live chat with a DAO support member. Payment for CANHelp will come from the internal budget for the CANApp.

CANAPP	DESCRIPTION	MONETISATION	DAO TASKS
CANInvoice	Allows users to create, save and share invoices on IPFS.	Ad-space	CANHelp CANAds
CANStation	Shows user-friendly network metrics.	Ad-space	CANHelp CANAds
CANShare	Allows users to share large files on IPFS.	Freemium pay-per-use, Ad-space.	CANHelp CANAds
CANSign	Allows users to sign and save documents using their identity and IPFS.	Freemium pay-per-use, Ad-space.	CANHelp CANAds
CANTrack	Allows users to track and sign their daily tasks using their identity.	Ad-space	CANHelp CANAds
CANSend	Allows users to send batch-send tokens to addresses (airdrops).	Freemium pay-per-use, Ad-space.	CANHelp CANAds

4.2.   CANAPPS

CANApps are all characterised by being two-sided marketplaces that serve different aspects of the global peer to peer service industry. The first party makes a listing, whilst the second party desires to engage with the first party on the terms of the listing. There is an escrowed value transfer, which allows parties to leverage each other to achieve their desired outcomes.

Each CANApp requires deep integration with the CanYaDAO in splitting up maintenance and governance tasks. The CanYaDAO may curate listings, offer the CANHelp app for support ticketing as well as providing dispute resolution services.

CANApps also require deep integration with the host of CanYaCore infrastructure, such as the escrow, fee service and trustless payments.

CANApps attempt to increase their own internal budget by cycling revenue through the ecosystem. Valuable and effective CANApps will grow and be developed, whilst CANApps that never achieve product-market-fit will be terminated. Once the Core infrastructure is built, the cost of building and maintaining a new CANApp is substantially low, allowing hundreds, if not thousands, of CANApps to be built and supported.

The following are examples of CANApps being planned and developed:

CANAPP	DESCRIPTION	MONETISATION	LEGACY APP
CANServices	Providers list digital services whilst users hire them.	Transaction fee, freemium listing fees.	UpWork
CANHire	Companies can post job descriptions looking for talent, and anyone can earn a honeypot by submitting talent.	Transaction fee, freemium listing fees.	Recruitment Agencies
CANBounties	Developers post bounties and the open source community work for them.	Transaction fee, freemium listing fees.	BountySource
CANJobs	Users submit local jobs, and providers bid to earn them.	Transaction fee, freemium listing fees.	AirTasker
CANSell	Providers host digital goods on IPFS and users purchase them for a fixed price.	Transaction fee, freemium listing fees.	Shopify
CANDesign	Designers list their portfolio and users purchase them for a fixed price.	Transaction fee, freemium listing fees.	99Designs
CANBid	Sellers auction goods off. Digital goods use IPFS to deliver, physical goods area posted or may use CANDeliver for local delivery.	Transaction fee, freemium listing fees.	eBay
CANDeliver	Local delivery of goods. Drivers indicate their availability to courier goods, sellers list parcels that need to be delivered.	Transaction fee, freemium listing fees.	Delivery Services
CANExperts	Experts list their skills, users pay per hour.	Transaction fee, freemium listing fees.	Teachable

CANAPP	DESCRIPTION	MONETISATION	LEGACY APP
CANStay	Hosts list their homes, and users pay to be guests.	Transaction fee, freemium listing fees.	AirBnB
CANDrive	Drivers list their driving services, users pay them on demand.	Transaction fee, freemium listing fees.	Uber
CANSit	Babysitters list their services, Parents hire them.	Transaction fee, freemium listing fees.	Sitter
CANFly	Drones list their services and users pay to fly on-demand.	Transaction fee, freemium listing fees.	Droners
CANSomething	*Marketplace description here.*	*Monetisation Strategy here.*	*Existing marketplace about to be disrupted.*

The following are details on actively developed CANApps.

CANServices has been launched as an Alpha and is a platform for digital service providers to show their skills and be hired. Features include:

- Uport log-in
- Find, hire and book providers globally
- Pay in CAN token
- Message providers
- Chat Bot integration
- Changelly integration

CANHire is being developed and is a platform for companies to list new hiring positions and for anyone to submit candidates. CANHire uses a novel incentivisation strategy to ensure recruiters are incentivised to find the best candidates. CANHire will use smart contracts as the escrow of payment and will disrupt traditional recruitment agencies.

CANJobs is being developed and is a local jobs platform like AirTasker. Users submit job posts and funds are held in escrow. Anyone can complete jobs and receive the payments and reviews.

CANSell is a platform for users to easily sell their digital goods online, such as images, photos, music files or videos. Other goods include 3D files, documents and code repositories. Anonymous buyers are delivered the digital goods instantly once paid.

CANBid is a platform for users to list their items and for other buyers to bid on the item by placing into escrow their funds. The escrow will refund other buyers and will close the auction and deliver the goods autonomously.

5. CANYADAO

5.1. OVERVIEW

The CanYaDAO is the most crucial part of the ecosystem, serving as a treasury, maintenance body and governance board. The CanYaDAO will allow all CANApps to be scalable from a business logic and support backend, allowing any CANApp developer to connect global, 24/7 support to their CANApp. This removes the burden of funding marketing, operations, and support teams, letting the developer instead focus on building a great user experience for their CANApp.

The CanYaDAO has three Tiers: Agent, Admin and Core. Agents can be anyone who stake the minimum of CAN tokens required for DAO entry and perform basic tasks in the DAO. Admins govern Agents, and perform higher level tasks in the DAO with wider consequences. As such, they require a higher stake, longer DAO experience and a threshold of reputation earned in the DAO. This ensures that all Admins have socially proved their alignment and commitment to the ecosystem.

Core is the final tier and is initially fulfilled by the CanYa Team. As the CanYaDAO matures, Admins may request to join the Core Tier by staking a much higher amount. This allows the CanYa Team to transition to a point where the CanYaDAO is governed and operated by DAO members - and achieves decentralisation.

Anyone at any time can leave the DAO and reclaim their stake. The stake is held to prevent rogue actors inside the DAO and incentivise long term alignment. Agents and Admins earn off tasks in the DAO, with the payouts for Admin tasks a lot higher than Agent tasks.

TIER	STAKE	ENTRY	ROLES
Agent	1,000 CAN	Anyone	Basic tasks, support tickets, recommendation of listings.
Admin	10,000 CAN	Agents with 90 days DAO experience and good reputation.	Approvals, curation, arbitration.
Core	100,000 CAN	Admins with 365 days DAO experience and excellent reputation.	Funding approvals and changes to the CanYaDAO and CanYaCore.

The following is a number of tasks that are facilitated by the DAO. Each task has a tier-level, as well as the correct incentivisation mechanics. Tasks can even be prioritised by increasing the payout behind the task, such as support tickets that haven't been answered.

Each task has the correct quality assurance and crypto-economics to ensure that quality is high, bad actors are penalised and contains in-built randomness to remove biases.

FEATURE	TIER	DESCRIPTION	INCENTIVISATION	QUALITY ASSURANCE
CANHelp	Agent	Incoming support queries from CANApps.	Agents are paid to answer each query, payments increase with good feedback.	Support agents pass mandatory CANApp training, with ticket-based feedback. Rogue agents are demoted.
CANAds	Agent & Admin	Incoming ad copy is curated by Agents and approved by Admins.	Agents are paid to curate on ads. Admins are paid to approve.	Each ad uses randomised voting and approval with consensus.
CANid	Agent & Admin	Incoming Skill Attestation of users.	Agents are paid to vote on skill attestation. Admins are paid to approve.	Each skill uses randomised voting and approval with consensus.
Curation	Agent & Admin	Listings are submitted for curation and approval.	Agents are paid to vote on listings. Admins are paid to approve.	Each skill uses randomised voting and approval with consensus.
Arbitration	Admin	Admins are paid to investigate and handle disputes.	Admins are paid on resolution of a dispute.	Each listing requires randomised consensus (3, 5, 7 votes).
Agent Approval	Admin	New Agents request entry to the DAO.	Admins are paid a flat fee to approve.	Each approval requires randomised consensus (3, 5, 7 votes).
Seed Funding	Core	Core approve new funding request for a CANApp.	-	Consensus.
Admin Approval	Core	Agents request upgrade to Admin.	-	Consensus.
CanYaCore Development	Core	Core approves new versions of Core software.	-	Consensus.
DAO Parameters	Admin & Core	DAO Parameters are changed.	-	Consensus.

5.2.   FUNDING

Each CANApp has clear and transparent funding mechanics to incentivise sustainable growth.

1. **Seed Funding**. A list of proposed CANApp ideas is shown. Each CANApp has a funding goal to be met, decided upon by the DAO. Anyone can donate to an escrow to fund the CANApp, including the DAO itself. Anyone can nominate to build the CANApp, including the DAO. Once the CANApp is funded and has a nominated developer, the escrowed CAN is released in milestones.

2. **Feature Bounties**. A list of proposed features is also shown on each CANApp. Each feature has a funding goal, decided upon by the DAO. Anyone can donate to a feature bounty to prioritise development. As the code is open-source anyone can work on feature bounties and submit them to earn the bounty.

3. **Ongoing Revenue**. All CANApps will be extremely cost-effective to maintain, with very low server costs, no third-party licensing required and instant access to a global operational and support backend from the DAO. After seed-funding is exhausted, each CANApp will need to drive revenue back to their internal budget to pay for feature bounties and for CanYaDAO engagement. The more revenue is driven back, the more feature bounties can be funded, further driving growth.

3.1.   SCALABILITY

Launching and scaling an existing marketplace app has four key problems preventing scalability. CanYa can solve all of these simultaneously with the components listed above.

1. **Technology**. With the existing technology of 2018, scaling an app globally is trivial with services such as load-balancers, firebase hosting and CDNs. CanYa's challenge is to build scalable dApp technology, but will use off-chain until on-chain can match performance.

2. **Marketing.** Attaining widespread adoption requires viral marketing efforts to grow initial user-base adoption. CANApps can exploit referral based marketing paid for from the DAO in CAN tokens to economically incentivise adoption without requiring VC funding.

3. **Operational Support.** All marketplace apps require operational support in helping user on-boarding, support tickets, curation and dispute resolution. Normally operational staff need to be hired, on-boarded and trained to handle the operations of each marketplace. This is the biggest hamstring to fast global growth. CanYa counters this with the CanYaDAO - a 24/7, global, multi-lingual and on-demand operational and support backend to any CANApp. By marrying cryptoeconomics with a permissionless ecosystem the burden of maintaining providing operational support becomes trivial.

4. **Ongoing Development.** Traditional apps require full-time developers to maintain and implement a feature roadmap. Often they ship features that aren't needed, and due to salaried or contracted engagement, rarely have aligned incentive structures with the performance of the features they ship. CanYa will do away with this by being open-source and having a novel per-app funding mechanism with Feature Bounties, assigning funds where growth is sustainable.

5. CORE INFRASTRUCTURE

5.1. OVERVIEW

CanYaCore is a set of infrastructure that is built by the CanYa Team to be used across all CANApps. Once CanYaCore is built and matured, developing a new CANApp will become trivial. Developers will simply integrate their desired components, adopt the CanYa Style Guide and Templates, connect their CANApp to the CanYaDAO and launch.

All CanYaCore components will be open-sourced and continually developed. CanYa has on-going relationships with other projects to contribute actively to the Core Infrastructure. Third-party infrastructure may come with a small tax to pay for the use of infrastructure, such as decentralised databases or compute. In this case CanYa will seamlessly handle the payment of fees by converting from CAN to the third-party token using trustless continuous liquidity such as Bancor.

Some of the core components are also serviced by the CanYaDAO for curation and crowd-sourced verification. In these cases, the fees from these services are paid for by the CANApp's internal budget. All other core infrastructure is free and has no fees.

CANYACORE	DESCRIPTION	TECHNOLOGY	DAO TASKS
CanYaStyle	A set of style templates for web and mobile apps, including all assets.	Web2.	-
CANid	An identity and skill attestation management service.	Ethereum, IPFS, Web2.	Crowd-verified skill attestation.
CANWallet	A wallet and integrated exchange with a linked debit card.		
CANHelp	A live-chat and support help-desk to any CANApp.	Ethereum, IPFS, Web2.	Live-chat, support tickets.
CANAds	An ad network allowing purchase of ad-space on relevant CANApps.	Ethereum, IPFS, Web2.	Curation of copy.
CANAnalytics	An anonymous web-3 analytics software for CANApps to be optimised.	Ethereum, IPFS, Web2.	-
CANPay	A seamless experience in paying in fiat and a number of supported crypto-currencies.	Licenced fiat partners, Bancor, Kyber.	-
CANFees	A simple freemium listing fee management suite.	Ethereum, IPFS, Web2.	-
CANEscrow	The hedged escrow contract that facilitates peer to peer trustless payments, with DAO-sourced dispute resolution.	Ethereum, IPFS, Web2.	Dispute Resolution
CANChat	An instant messaging framework for CANApps, with integrated privacy and reveal features.	Ethereum, IPFS, Web2.	-
CANCall	Video and Voice calling framework for CANApps.	Ethereum, IPFS, Web2.	-
CANLicence	Third-party Oracle for approving Licences.	Ethereum, IPFS, Web2.	-
CANFund	Tracks and monitors donations and feature bounties for each CANApp	Ethereum, IPFS, Web2.	Disbursements

5.2.   CANYA STYLE GUIDE

The CanYa Style Guide is a set of web and mobile based templates and assets that conform to the current CanYa ecosystem style and identity and allow developers to quickly add the necessary style components to CANApps. This allows them to rapidly prototype and build new CANApps to a high user interface design standard set by Core.

Components:
· Fonts
· Colours & Gradients
· Button & Form Styles
· Cards, Headers, Footers
· Layout and sizing

5.3.   CANID & CANWALLET

CANid is an integrated wallet, identity and skill management services powered by decentralised technologies. A user provisions a new HD wallet, verifies their details and perform an optional one-time KYC. KYC is performed through a licensed third party, who will be the Oracle to update the profile as "KYC'd". Reaching KYC'd verification is necessary for high value-transactions.

Users can also choose to submit skills which are crowd-verified from the DAO and saved to their profile. In this case they submit a claim they make about a skill as well as some form of proof:

"I am a javascript developer" & **proof of being a javascript developer**
"I am a public speaker" & **proof of being a public speaker**
"I am a gardener" & **proof of being a gardener**

Random Responses
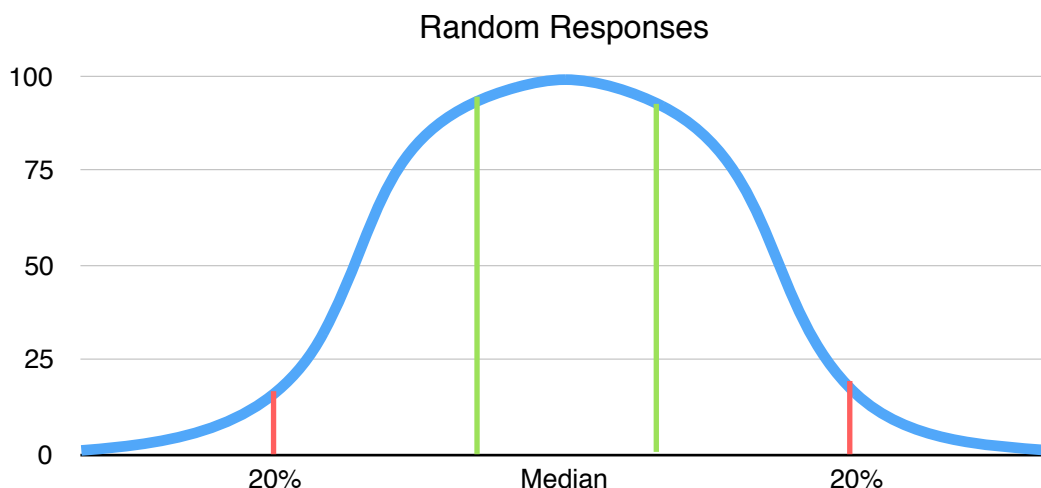
Random DAO Members are then incentivised to make judgements on the claim and proof. Upper and lower Schelling fences of 20% are trimmed off (to remove outliers) and the median 20% is rewarded. The final verification of the skill is the average of the median. This ensures that the skill is crowd-verified and cannot be influenced. By removing and not rewarding any vote outside of the median donkey-voters are not rewarded, and waste their own time.

The wallet integrates Bancor and Kyber asset exchange to allow users to trustlessly maintain their assets. A linked debit card through a licensed third party provider allows the user to access their cryptocurrency assets for daily consumption[1].

| FEATURE	DESCRIPTION	TECHNOLOGY
Verification	The user verifies email and phone. Details are encrypted and stored on IPFS.	Ethereum, IPFS.
Identity	The user submits a one-time KYC and identity check.	Third-party KYC provider.
Skills/Qualifications	Users submit skill attestation, which includes skill title, proof and expiry.	CanYaDAO curation and approval. IPFS.
Licences	Users submit licence attestation, which includes licence, proof and expiry.	CANLicence Oracle approval.
Wallet	Hierarchical Deterministic Wallet.	BIP-32 HD Standard.
CANCard	A debit card linked to the wallet.	Licenced third-party debit card provider.
CANExchange	Integration of Bancor and Kyber to allow in-wallet exchange of assets.	Bancor, Kyber.

[1] Requires licensed third party integration

5.4.   CANHELP

CANHelp is a special service that incorporates a chat-bot utility as well as support from the CanYaDAO for 24-7 live chat and support ticketing. Users simply see a Crisp or Intercom style chat bubble on the button right of each CANApp, which connects them with CANHelp. A chat-bot serves typical questions, pre-loaded with content created by the CANApp developer, and maintained by the CANHelp. If the chat-bot cannot answer questions, or is skipped, the user is connected directly to an DAO Agent who can chat and offer support. At the conclusion of the interaction, the user can rate the DAO Agent, which contributes to their reputation score. Queries that cannot immediately be answered are ticketed and tagged for follow-up by agents. Other Agents can see historical questions to quickly offer relevant advice. The user is identified simply by their wallet address or other anonymous tags, such as session ID. If the user provides an email, follow-up advice can be provided through email contact, sent from the DAO by the DAO agent.

The CANApp developer creates small on-boarding training sessions so that DAO Agents are specifically trained to serve help for that CANApp. The DAO maintains permissions for qualified DAO Agents, but ultimately anyone can participate. As incoming tickets arrive for a CANApp, they are priced and shown to Agents. If any tickets are left unattended, the pricing behind them increase, incentivising more agents to respond. If a CANApp is serving a lot of support tickets, then the relative reward behind them will increase, incentivising more agents to on-board to that CANApp.

CANHelp presents scalable on-demand help and customer support for each CANApp. Each CANApp will pay for help from its own internal budget. In this way, growth of each CANApp is always sustainable.
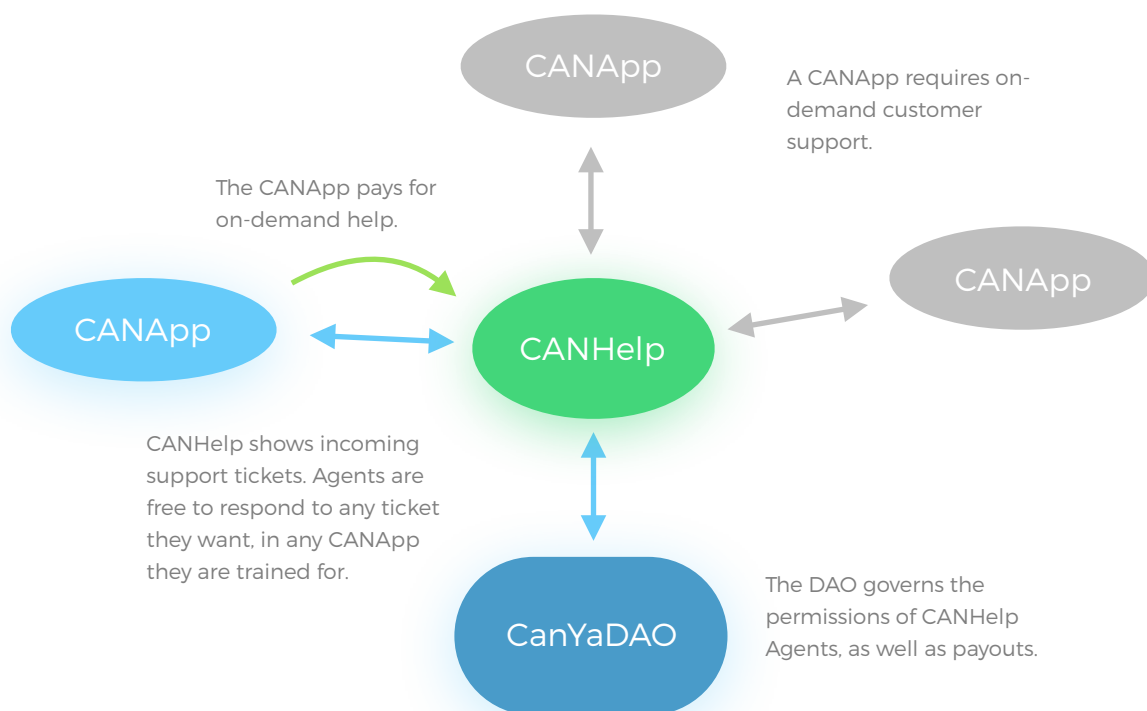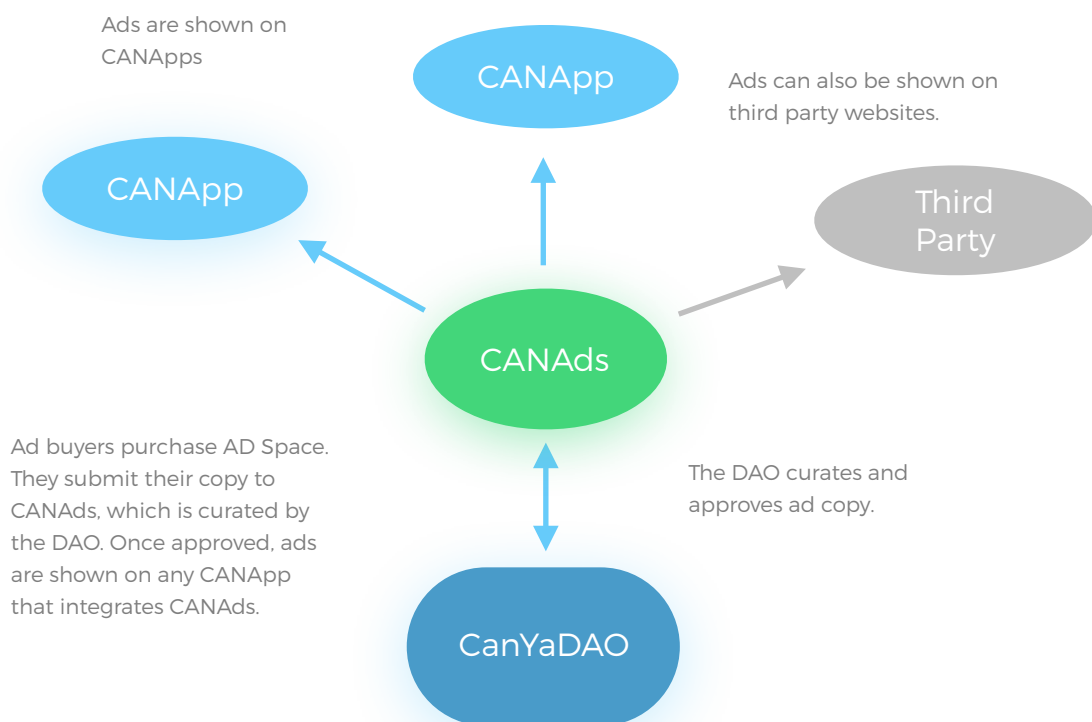
5.5.   CANADS

CANAds is a simple monetisation strategy for CANApps Lite; which may not have other forms of revenue, but have to provide value to the ecosystem. Each CANApp nominates ad banner space, and a CANAds dashboard allows third-parties to purchase ad space. Ad space is priced depending on existing demand and transparent traffic metrics. Publishers pre-pay the ad space and submit copy to the CanYaDAO for approval. Once approved, the payment is deducted and ad shown for the duration of the time purchased.

If copy is subsequently rejected by the CanYaDAO (ads are reported for misuse, objectionable or scam content) then they are removed and the ad space is made available again.

Payment is made by CANPay.

Ads are shown on CANApps

CANApp

CANApp

Ads can also be shown on third party websites.

Third Party

CANAds

Ad buyers purchase AD Space. They submit their copy to CANAds, which is curated by the DAO. Once approved, ads are shown on any CANApp that integrates CANAds.

The DAO curates and approves ad copy.

CanYaDAO

CANAds can also be shown on third party websites. In this case, revenue paid out is 99%, with 1% being retained and sent to the Asset Contract. This is a far higher share than any other competing ad platform.

5.6.   CANANALYTICS

CANAnalytics is a simple and anonymous analytics suite for CANApps developers to transparently show traffic, user behaviour and usage to allow optimisation. CANAnalytics is also employed by CANAds to allow fair pricing of ad space.

5.7.   CANPAY

CANPay is a seamless payment module that allows users to pay in any token, crypto or fiat currency they want. The underlying exchange is performed by Shapeshift, Bancor and Kyber integration. Fiat conversions are handled by CoinBase, Changelly or Bancor.

The incoming currency is converted to CAN and sent to the CANEscrow.

5.8.   CANCHAT & CANCALL

CANChat and CANCall are peer-peer messaging and video/voice calling frameworks that work inside the CanYa ecosystem to allow seamless communications between users.

CANChat and CANCall are both securely end-end encrypted, however have the additional feature in that encryption keys are shared with authorised agents from the DAO to review communications in the case of a dispute. In this case, users are adequately informed and have to opt-in to share. The DAO agent can review comms between parties in order to come to a fair decision on the dispute.

5.9. CANESCROW

CANEscrow is a smart contract that holds secured cryptocurrency for the intended recipient. Incoming currency is first converted to CAN, before being held in escrow. The escrow is coupled with a hedge, that seeks to maintain the value of the escrow, regardless of the price of the token.

The hedge is a Bancor Array Token that connects with a basket of Ethereum stablecoins, such as the Digix gold token and the DAI USD token. This will create an internal pool in order to provide collateral to hedge the amount of cryptocurrency sent to the smart contract. Bancor technology will provide the price oracle for the CAN token.

The outcome is that the value of the invoice is stable, despite fluctuations in price. Intended recipients will be paid a fixed value, but not a fixed amount of CAN tokens.

SITUATION	ACTION	OUTCOME
Escrowed Value Stable	-	-
Escrowed Value Increases	CAN sold into Hedge	Escrowed CAN reduces.
Escrowed Value Decreases	Hedge sold into CAN	Escrowed CAN increases.

The hedge is funded by a proportion of the CanYa Team's crypto assets, DAO revenue funding and external grants from foundations.
An example of the process:

- The hedge contract is funded by CanYa, the DAO and related foundations with a nominal $100,000.

- A client books a provider for $1000 and sends crypto to the escrow contract. The escrow already has $9,000 in other escrowed payments, bringing a total of $10,000 in escrowed value.

- The provider completes the job and sends the $1000 invoice. The client releases the payment. The escrow honours the $1000 payment by sending an adjusted amount of CAN tokens, guided by the Bancor price oracle. The following will happen on a transaction basis:

  - **The value of CAN token has reduced by 10%.** In this case, the hedge value is $100,000 whilst the escrow value is now $8000 with a realised deficit of $100 ($100 of escrow was used to make up the loss in the $1000 invoice). The hedge automatically market buys $100 into the escrow contract using a Bancor Relay Token. This has two consequences:
    - The realised deficit of $100 is covered.
    - A market buy causes a stabilising price movement to prevent further volatility.

- **The value of CAN token has increased by 10%.** In this case, the hedge value is $100,000 whilst the escrow value is now $10,000 with a realised gain of $100 (The over-valued invoice left $100 spare in the escrow). The escrow retains the spare CAN to cover future over-exposed invoices.

Real World Assessment

The following basic assessment of how the CANEscrow would work using historical data shows that due to different invoice maturity dates, a growing escrow and a small amount of upside pressure results in the hedge never being used. Of course a large black swan event may require the hedge to cover exposure, but importantly the hedge is only covering invoices that mature with a deficit *and only the deficit.*

A random date period of CanYaCoin was chosen, and 15 random invoices were placed.

These invoices have the following real-world outcomes:

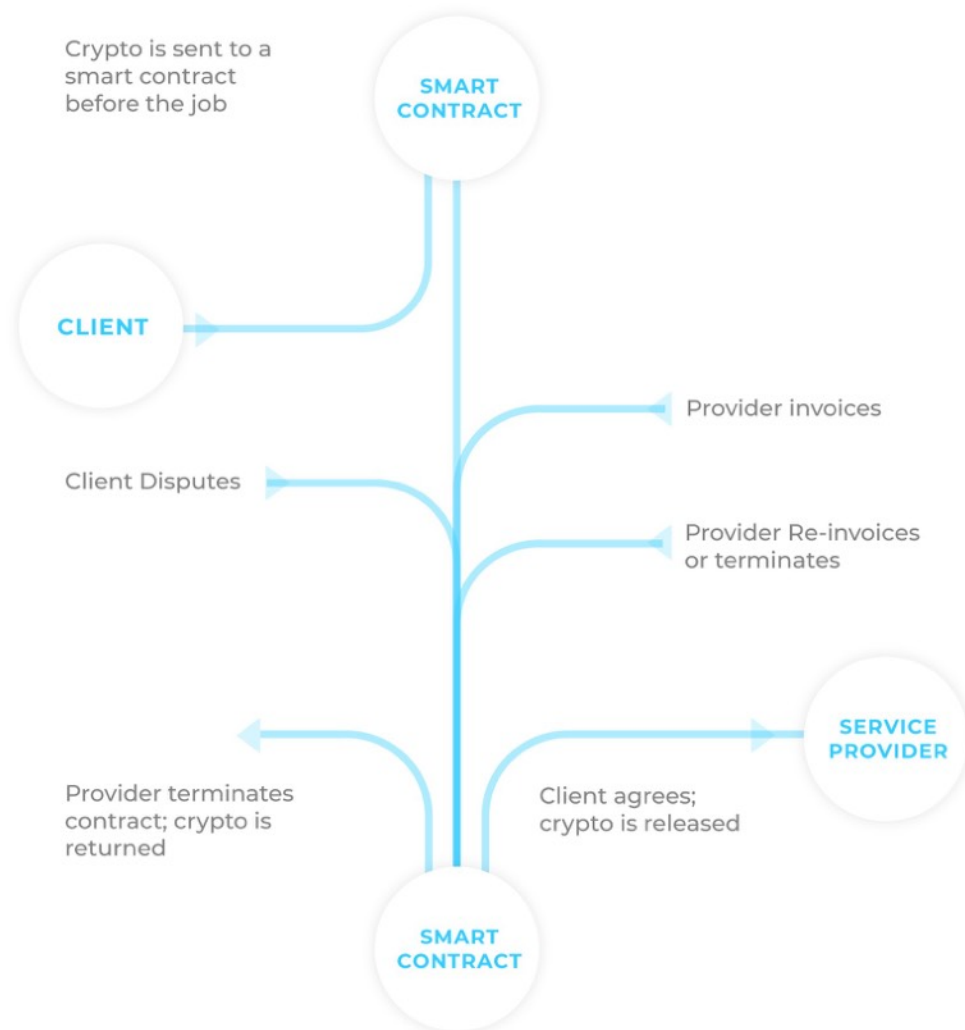| INVOICE	DATE	VALUE	PRICE	CLOSE	PRICE	VALUE	DEFICIT/ GAIN	BUFFER	ESCROW
1	10 Apr	$ 1,000	$ 0.195	18 Apr	$ 0.261	$ 1,338.46	$ 338.46	$ 338.46	$ 1,000
2	11 Apr	$ 200.00	$ 0.205	16 Apr	$ 0.252	$ 245.85	$ 45.85	$ 384.32	$ 1,200.00
3	12 Apr	$ 150.00	$ 0.221	15 Apr	$ 0.237	$ 160.86	$ 10.86	$ 395.17	$ 1,350.00
4	12 Apr	$ 2,000.00	$ 0.221	15 Apr	$ 0.237	$ 2,144.80	$ 144.80	$ 539.97	$ 3,350.00
5	13 Apr	$ 650.00	$ 0.242	22 Apr	$ 0.292	$ 784.30	$ 134.30	$ 674.27	$ 4,000.00
6	15 Apr	$ 500.00	$ 0.237	06 May	$ 0.272	$ 573.84	$ 73.84	$ 748.11	$ 2,350.00
7	18 Apr	$ 420.00	$ 0.261	23 Apr	$ 0.318	$ 511.72	$ 91.72	$ 839.83	$ 1,570.00
8	20 Apr	$ 178.00	$ 0.320	22 Apr	$ 0.292	$ 162.43	$ (15.58)	$ 824.26	$ 1,748.00
9	21 Apr	$ 1,230.00	$ 0.321	23 Apr	$ 0.318	$ 1,218.50	$ (11.50)	$ 812.76	$ 2,978.00
10	22 Apr	$ 670.00	$ 0.292	30 Apr	$ 0.292	$ 670.00	$ 0.00	$ 812.76	$ 2,820.00
11	27 Apr	$ 23.00	$ 0.304	29 Apr	$ 0.304	$ 23.00	$ 0.00	$ 812.76	$ 2,033.00
12	28 Apr	$ 134.00	$ 0.283	06 May	$ 0.272	$ 128.79	$ (5.21)	$ 807.55	$ 2,167.00
13	01 May	$ 1,800.00	$ 0.274	10 May	$ 0.214	$ 1,405.84	$ (394.16)	$ 413.39	$ 3,274.00
14	02 May	$ 45.00	$ 0.270	03 May	$ 0.270	$ 45.00	$ 0.00	$ 413.39	$ 3,319.00
15	05 May	$ 369.00	$ 0.264	10 May	$ 0.214	$ 299.11	$ (69.89)	$ 343.51	$ 3,643.00

The value of the escrow, as well as the buffer is shown, showing that despite CAN fluctuating by over 50% in the time period, no invoices were ever paid out below the contracted price.
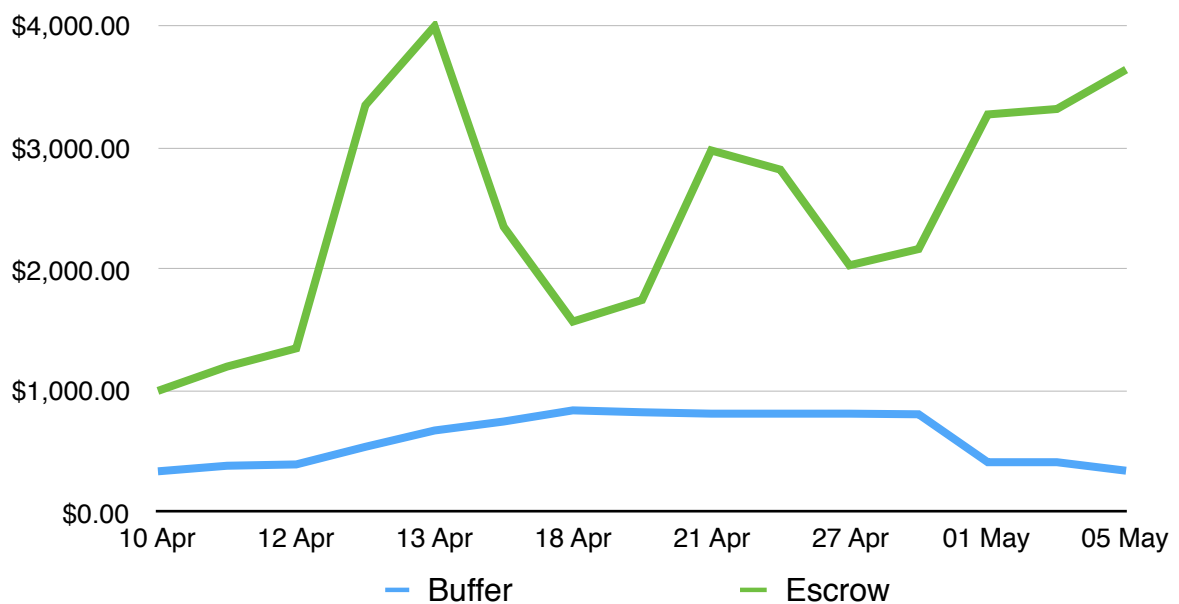
5.10. DISPUTE RESOLUTION

The CANEscrow holds the payment but allows both parties to take recourse against each other and encourages them to negotiate. The user seeks to achieve value-satisfaction, whilst the provider seeks to earn value.

In the event the negotiations between parties is fruitless, either party can request arbitration from CanYaDAO. When both parties agree to arbitration, the encryption keys to private peer-peer CANChat are shared and all job logs are opened up to view by the arbitrator. This allows the arbitrator to seek clarity on the job and determine an outcome.

Crypto is sent to a smart contract before the job

SMART CONTRACT

CLIENT

Provider invoices

Client Disputes

Provider Re-invoices or terminates

Provider terminates contract; crypto is returned

Client agrees; crypto is released

SERVICE PROVIDER

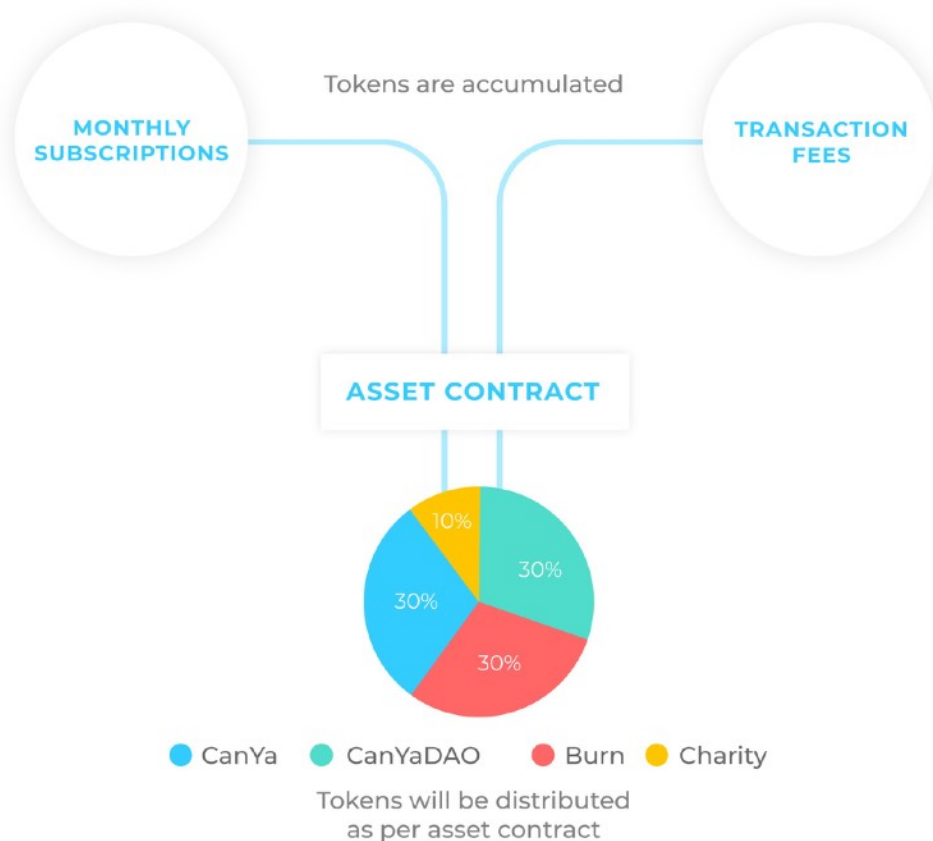SMART CONTRACT

5.11. ASSET CONTRACT

All forms of CanYa revenue will be collected and sent to an Asset Contract. The Asset Contract will accumulate the crypto and split them in accordance with the publicly-viewable proportions in the smart contract. 30% will be sent to the CANApp that they originated from, 30% will be sent to the CanYaDAO, 30% will be burnt, and 10% will be sent to the Charity Pool.

As the Asset Contract sends an amount of tokens to the Rewards Pool, which is unlocked and recycled back to the users as rewards, and increases the circulating supply and liquidity in the market. Consequently, the token value would decrease if nothing else was done due to inflation. To offset the increase in supply, an equivalent amount of tokens needs to be burnt, which is why the Asset Contract contains a burn function.

Please note, CanYa as an entity does not perform any action to burn tokens; rather users on the platform cause the tokens to be burnt by way of the Asset Contract. The burning of tokens is dependent on user-behaviour in order to maintain the integrity of the CanYaCoins.

Charity Pool

CanYa as an organisation believe in the pay-it-forward concept, and as such, will be maintaining a pool of tokens to be gifted to selected charities, drawn as a 10% payout from the Asset Contract.

Tokens are accumulated

MONTHLY SUBSCRIPTIONS

TRANSACTION FEES

ASSET CONTRACT

10%

30%

30%

30%

● CanYa ● CanYaDAO ● Burn ● Charity

Tokens will be distributed as per asset contract

6. CONCLUSION

CanYa is an open ecosystem with CANApps (decentralised apps build on CanYa technology), the CanYaDAO (an organisation that powers the CanYa ecosystem) and CanYaCore, a set of infrastructure to help any developer build a CANApp quickly and easily. Each CANApp functions as a discrete organism in the ecosystem, with its own budget and revenue streams. The best CANApps are supported, developed and grow sustainably fast.

The end result is a rapidly growing decentralised and autonomous ecosystem for peer to peer services.