

CYDigital™

CYDIGITAL LITEPAPER

April, 2019

PROJECT NAME

CYDigital

TAGLINE

Enabling Consumers to Own and Profit from Their Data

BRIEF DESCRIPTION

CYDigital is bringing to market a blockchain-based, smart contract-enabled solution where Consumers can collect, own and profit from their data, and our first service will enable Advertisers to access highly-valued Consumer targets (at the expense of search and social advertising).

MISSION

THE MISSION

CYDigital will adhere to its philosophy of shared value, respect for Consumers' time and attention, noninvasive communication with Consumers and, most importantly, Consumers' ownership of their data. Integrity goes hand in hand with regard for privacy. Advertisers that participate in our system will be building loyalty and trust with Consumers from which all will benefit.

CYDigital will build integrity through:

- Sharing in the value chain
- Respect for Consumers' time and attention
- Noninvasive communications
- Consumer ownership of data
- Protection of Consumer data from abuse
- Shielding Consumers from uninvited advertising.

THE WHY

The founders have been viscerally disturbed with the amount of data abuse being heaped upon consumers worldwide by the Internet's monoliths, e.g., Facebook, Google. This includes taking ownership of the consumers' data and leveraging it for the profit of these oligarchs.

The founders believe that the data should be, and must be, owned by the consumer, and that their data has great value.

So to this end, the founders have determined that the US Consumer alone loses approximately \$2500/year as a result of not having the ability to capture and control their data. This is a \$820B problem in the US.

So with this motivation, the drive to give back that which belongs to the Consumer, CYDigital was formed.

MARKET AND SOLUTION

CYDigital is targeting the US Internet user as participants in the CYDigital ecosystem, and US advertisers desiring to reach said consumers.

The initial CYDigital service connects to the Consumer's data and processes to facilitate connections between them and Advertisers that have offers that may be of interest to the Consumers. Note that this interaction and the sharing of Consumer data with Advertisers is completely at the discretion of the Consumer. This initial CYDigital

Services is called initial service called the Advertiser Offer System ("AOS").

CYDigital is the mediation point between the Advertiser and the Consumer. CYDigital works with the Advertiser to make high-value and rewarding offers available to Consumers. The Consumer decides if the Advertiser can have a limited snapshot of their data by accepting the offer and the accompanying CYDT reward. The CYDigital Service Analysis Layer accomplishes this by digesting and structuring Consumer usage data

stored in the Consumer's private location node.

CYDigital takes steps to make sure that Consumer data has not been tampered with and is structured in a consumable way for the CYDigital processes. CYDigital does not record or store any of the Consumer's underlying data in its own database.

Another feature of the CYDigital system is its real time offer engine. With consumer permission, CYDigital can serve up offers from Advertisers to Consumers while Consumers are shopping for a product or service. These are high-relevancy offers made while the Consumer is showing the most interest.

MARKET DYNAMICS

In addition to the incentive of earning cash for participation, there are two factors that will drive Consumer demand for CYDigital:

The Data Control Problem

Consumers are creating tens of thousands of data points daily as they surf, chat, shop, or otherwise consume information online. At the mercy of the oligopolistic social and search platforms, Consumers are sacrificially granting the rights to their online data to mammoth Internet companies, like Facebook and Google, who are then selling access to the Consumers' data and/or

profiles to third-parties. Many third-parties are then bombarding Consumers with poorly targeted advertisements and messages for which the Consumers did not subscribe.

According to research published by the DMA, Acxiom and Future Foundation, 80% of Consumers believe that personal data is their property and that they should be able to share their data as they see fit.¹ Yet, "nearly 6 in 10 respondents (58 percent) said they were willing to let a third party collect at least one type of sensitive personal data ... in

¹ Acxiom, *Data Privacy: What the Consumer Really Thinks*, June 2015 at 5,

https://dma.org.uk/uploads/ckeditor/Data-privacy-2015-what-consumers-really-thinks_final.pdf.

exchange for a service or benefit”², so it is clear that Consumers are willing to exchange data for some benefits.

In that vein, Consumers have reason to demand a system in which they are able to (i) determine which third-parties may have access to their online data, and (ii) receive rewards/benefits in exchange for granting such data to third-parties.

The Data Value Problem

The Data Commercialization market is huge. Data commercialization, or the ability to generate value from data for internal use or external trade, has grown to the point where “1/3 of firms report commercializing data or sharing it for revenue with partners or customers.”³ MIT’s Sloan Management Review defines three categories of data commercialization

value, one of which is “Data as a Strategic Asset,”⁴ which is “the heart of data monetization, where data directly generates monetary value from sale or trade, or indirect when used to create value.”

“How big is the market opportunity for data monetization? In a word: big. The “Strategy&” unit of PwC has estimated that, in the financial sector alone, the revenue from commercializing data will grow to \$300 billion per year by 2018.”

Taking that figure as a basis for extrapolation, Financial Services represents 7.5% of US GDP, or \$1.45T⁵, which is validated by the US government’s estimate that the 2018 annual GDP will be measured at \$20.5T.⁶ CYDigital estimates that B2C revenue represents 20% of the US GDP⁷, or \$4.1T. So if we apply the

² Center for Data Innovation, *Americans Willing to Share Sensitive Biometric, Location, and Medical Data for Benefits, National Survey Finds*, January 22, 2019,

<https://www.datainnovation.org/2019/01/americans-willing-to-share-sensitive-biometric-location-and-medical-data-for-benefits-national-survey-finds/>

³ Forrester, *Insights Services Drive Data Commercialization*, March 8, 2017,

<https://go.forrester.com/blogs/17-03-08-insights-services-drive-data-commercialization/>

⁴ MIT Sloan Management Review, *What’s Your Data Worth?*, Spring, 2017,

http://ilp.mit.edu/media/news_articles/smr/2017/58331.pdf

⁵ <https://www.selectusa.gov/financial-services-industry-united-states>

⁶ <https://www.bea.gov/news/2019/initial-gross-domestic-product-4th-quarter-and-annual-2018>

⁷ B2C eCommerce as a percentage of US GDP is 2% (<https://www.statista.com/statistics/324582/b2c-e-commerce-as-percentage-of-gdp-usa/>), and B2C eCommerce represents 10% of all B2C sales (<https://www.statista.com/statistics/379112/e-commerce-share-of-retail-sales-in-us/>)

ratio of the value of financial services commercialized data divided by its GDP contribution to the B2C contribution to the US GDP, then we can safely say that the commercialized value of B2C

consumer data in the US is \$820B, or \$2500 per capita in the US. \$2500/person is the value lost by Consumers in the US as a result of (1) not having the means to capture their data, and (2) not having the means to monetize it.

PRODUCT DESCRIPTION

The system architecture is designed to provide granularity and transparency while maximizing value for Advertisers and for Consumers. The key components of the system architecture are the data store, the abstraction and query layer, and the smart contract interface.

The data store is an encrypted, multi-profile storage medium that captures user-selected, data-relevant actions such as browsing history, bookmarks, online shopping transactions and ad engagement. Consumers can view the data recorded in this data store and use it to track their own behavior. This data store creates a Digital Picture of the Consumer, and resistant to hacking and data breaches since there is no single store of user records.

Consumers with data in the data store have the option to share the encryption keys for that Digital Picture with CYDigital, allowing Consumers to participate in the CYDigital Platform.

The data store is a two-component system. The local component of the data store captures and encrypts Consumer data from the browser, while long term storage for the data happens via a decentralized data store (“Private Decentralized Data Record” or “DDR”) where participants are compensated with CYDT (the CYDigital token) when stored data is accessed. This distributed system is inherently

Once a Consumer shares their Digital Picture with CYDigital, an anonymized index corresponding to the user gets added to the CYDigital Consumers database via the data abstraction layer. This allows CYDigital to direct relevant offers to the Consumer. Searches against the database return anonymized and aggregated results for the number of Consumers matching the criteria specified in the search.

Data is obtained from Consumers via a smart contract layer. Advertisers who wish to obtain a Consumer's data make a smart contract offer for the data they are requesting, which is forwarded to the corresponding Consumers. If they accept the offer, a snapshot of their data is transmitted to the Advertiser and an amount of CYDT corresponding to the contract value is credited to the Consumer's account.

THE BUSINESS MODEL

The CYDigital business model relies on bringing Consumers and Advertisers together without the additional steps required by today's middlemen.

CYDigital will recruit Consumers with the incentive of token rewards just for signing up and allowing Consumer activities to be "recorded" and saved as a part of their Digital Picture.

After building a base of Consumers, and incenting Consumers to participate in its Friends and Family token sharing program, CYDigital will begin to recruit Advertisers so that they may be able to present offers to

the Consumer. We project that each Consumer will receive 5 offers each month.

For the Advertiser to participate, they will need to pay to access the CYDigital Consumer base using CYDT, i.e., they will need to acquire CYDT in order to pay CYDigital and the Consumer.

As the Advertiser base grows, CYDT becomes in higher demand. The same occurs with Consumers: as the Consumer base grows, CYDT rewards become in higher demand.

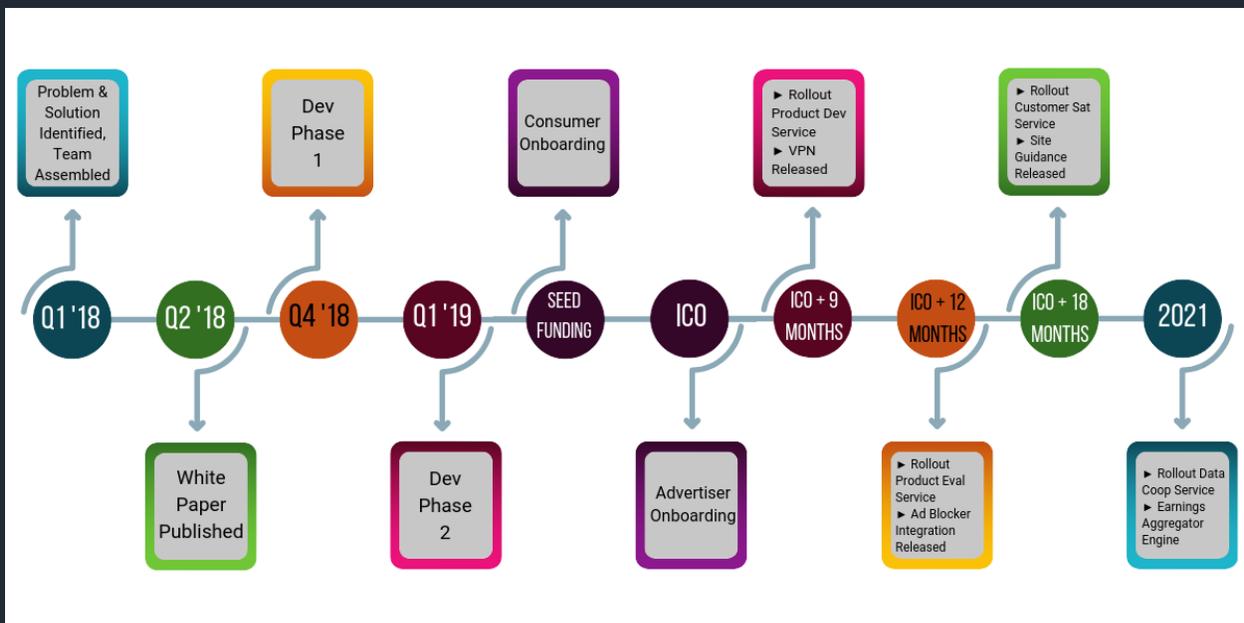
As a result, and because there will be a limited number of CYDT tokens minted (1B), CYDigital will need to purchase back from Consumers and other holders of CYDT their tokens in exchange for fiat.

This partially answers the question as to how Consumers can convert their CYDT holdings into cash. CYDigital's purchase of said CYDT is one way this will occur. The other method is for the Consumer to apply their CYDT

towards the aforementioned Super Offers, so as to reduce the selling price of the Advertiser's product or service.

Thinking ahead, as CYDigital begins to rollout additional services, the velocity of the CYDT token will additionally increase so that there is an ever-increasing need by CYDigital to purchase these tokens back from CYDT holders.

TIMELINE



THE TEAM

John Rizzo, CTO & Visionary

<https://www.linkedin.com/in/rizzo/>

With over 30 years of experience in the ad tech-related industry, John set out to start a company that would leverage blockchain technology to create a system that enabled Consumers to control their online data. Bringing his vision to fruition, John co-founded CYDigital, Inc., so named to reference the Company's mission of empowering Consumers to "Control Your Data." Before co-founding CYDigital, John held senior technology positions such as: Chief Architect at Vodafone Global, VP Technology at Aplix Corp, and SVP of Products and Innovation for Ubitus Inc. John has also worked on technology standards in the OMA (Open Mobile Alliance), OMTP (Open Mobile Terminal Platform), LiMo (Linux Mobile), OSGi (Open Services Gateway initiative), and the JCP (Java Community Process) where he was a two-term executive committee member. John was also awarded JCP Member of the Year in 2010 for his leadership. Thanks to these experiences, John brings to CYDigital]

his skills in blockchain development, database development, engineering management, software architecture, embedded platforms, telecommunications, IP formation and management, mergers and acquisitions, business development, and advising start-ups in the technology sector.

Joe Rizzo, CEO

<https://www.linkedin.com/in/joemktg/>

Recognized as a leader in the marketing technology industry (including as the #3 MarTech Influencer by Onalytica), Joe has been providing strategy, software, and support guidance to B2B and B2C companies in the marketing technology (MarTech) industry since 2001. Eager to apply his expertise to create a new and improved market solution for Consumers and Advertisers in the marketing technology industry, Joe co-founded CYDigital with CTO John. Before co-founding CYDigital, Joe founded OnDialog (was PluraPage), a landing page application integrated with

Salesforce, and raised \$7 million up through Series A (at peak, the company's valuation reached \$25 million). Joe has dedicated his career to digital marketing since 1996, when he started one of the first eCommerce sites for Altec Lansing, the leading provider of desktop audio. At Altec Lansing, he helped break open the consumer market for digital audio utilizing then-new USB (in conjunction with Intel), and was named one of the top marketers throughout the technology industry. Joe has held CEO, CMO, and VP Marketing positions since the early 1990s, and has managed teams ranging from a handful to a team of 150.

Morgan Pierce, CMO

<https://www.linkedin.com/in/morgnpierce/>

Leveraging her backgrounds as a serial entrepreneur, global speaker, venture capitalist and growth hacker, Morgan joined CYDigital in order to help bring the company's vision to life and, thereafter, to the lives of Consumers and Advertisers in the digital advertising industry. Morgan started her first technology business in 1988, and has since been involved

with more than 30 successful start-ups in cybersecurity, fintech, MarTech, CRM and HR. A graduate of Columbia University with a degree in Computer Science and Economics, Morgan started her career as an entrepreneur launching two start-ups in three years, both with multi-million dollar exits. She then gained experience in the multinational arena as Director of Marketing for EMEA at Oracle. In 1999, while at Oracle, she designed the first multilingual Internet marketing platform to enter the market. Recruited out of Oracle to launch a technology investment fund for a group of high net-worth investors, Morgan began her role as venture capitalist and led a dozen companies through successful fundraising initiatives during the dotcom boom. She is now also an advisor to other start-ups aiming to leverage blockchain technology in the fintech and MarTech industries. Morgan is an accomplished public speaker and lectures globally about the blockchain technology industry.

Nicholas Lepley, PhD Data Scientist & Advisor

<https://www.linkedin.com/in/nicholas-lepley-91148915>

An experienced and credentialed data scientist, Nicholas serves as a key advisor to CYDigital. Nicholas began his career as an academic researcher, where he studied medical diagnostics, thermoelectric power

generation, and completed a physics PhD focused on applied quantum mechanical modeling of lithium ion batteries. Upon witnessing the ways in which data was fundamentally changing culture, Nicholas left the field of physics to focus on data science and, thereafter, take part in CYDigital’s mission of enabling Consumers to control their online data.

COMPETITION

	 CYDigital	<i>Main Competitors</i>													
		Brave	Digi.me	ShopIn	Datwallet	Kind Ads	Engagement Token	TAP	Varanda	AXE	Impetus One	Permission.io	Noiz	Adbank (Blade)	
Consumer Focus Only	Absolutely	Yes	Yes	No	No	No	No	No	No	No	No	Yes	Yes	No	
Requires Publishers?	No way	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	
Reliance on an Ad Network?	Nope	No	No	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	
Positioned as an Ad Platform	Nay	No	No	No	No	Yes	No	No	Yes	No	No	Yes	Yes	Yes	
Requires Change in Consumer Behavior	Jeez, no	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes!!	No	Yes	No	
Consumer Purchases Required?	Negative	No	No	Yes	No	No	Yes	Yes	No	No	No	No	No	No	
Added crypto to an existing business?	No, no, and oh by the way, no	No	No	No	No	No	Yes	Yes	No	No	No	No	No	No	

Note the Competitors in the shaded background to the right in the above table. These are companies whose business model is reliant on the participation of publishers and/or ad networks, and should be considered

more ad tech focused rather than consumer data ownership focused. This is not CYDigital’s model: we are not targeting nor reliant on publishers and/or ad networks. With our first service, AOS, we will be

directly connecting Advertisers and Consumers without the need of any intermediary.

Shopin and Datawallet are not focused on the Consumer, rather, they are focused on bringing their B2B solution directly to the Advertiser as a means for the Advertiser to mine their internal database for opportunities. As a result, Advertisers can focus on only their internal database of Consumers, whereas all Consumers will be made available to all Advertisers via CYDigital.

CYDigital considers Brave and Digi.me as its main competitors, with one major difference. Both Brave and Digi.me require Consumer behavior changes, e.g., Brave requires the Consumer to use a completely different browser, and Digi.me requires the Consumer to setup and maintain all of their 3rd party accounts within their solution. CYDigital requires no changes in Consumer behavior, as it operates in the background without interfering with the Consumer's day-to-day online behavior.

PLATFORM

CYDigital will be using the ERC20 token as a utility token, where it plays a vital role in the CYDigital ecosystem (as described earlier in this lightpaper)

BLOCKCHAIN USAGE

CYDigital will be using an Ethereum-based blockchain. Regarding a mechanism for consensus for the blockchain: at this stage of CYDigital's development, we will be using a pre-mined pool of tokens. CYDigital will be a hybrid of permissioned and private, as we need to provide

transparency to CYDigital Consumers and Advertisers. CYDigital is purpose-driven, has token use, and will control the roles in the chain. To meet the needs of proof, CYDigital will be the approver of the transaction, thus enabling gasless transactions.

THE PURPOSE OF THE CROWDSALE

The purpose of the ICO is to build out...

Development and Support (42%) - The team consists of software engineers support personnel. As a consumer-facing business, consumer support will be of paramount importance. This category also includes all development tools and infrastructure to build and maintain the product.

Sales and Marketing (33%) – This includes all inbound and outbound

marketing activity, sales and marketing technology, and sales and marketing personnel. A direct sales team is required so as to build the Advertiser base.

Operations (22%) - Consists of CYDigital general and administrative costs (G&A) as well as the costs associated with the buyback of CYDT tokens so as to keep the ecosystem flush with CYDT.

Legal and Professional Fees (3%) – Relatively minor but accounted for separately.



CROWDSALE TIMELINE

Private sale

A maximum of 9,100,000 CYDT tokens will be offered to strategic buyers in the crypto community in a private sale process. The book-building process commences on March 1, 2019. Unsold tokens will be made available in the next round.

Accredited U.S. Investors can participate only under the Warrants Convertible to Tokens program. The objective is to raise \$650,000 USD during the private sale period. NOTE: there's an additional 30MM in CYDT to be given as a bonus to all private sale investors, divided proportionally (based on size of investment).

Private Sale Discount Tier	Non-discounted CYDT Price (USD)	Private Sale Discount	Discounted CYDT Price (USD)	Maximum Number of CYDT Available	Minimum Purchase (USD)
Tier 1	\$ 0.1159	50%	\$ 0.057950	1,121,657 CYDT	\$ 5,000
Tier 2	\$ 0.1159	45%	\$ 0.063745	1,529,532 CYDT	\$ 5,000
Tier 3	\$ 0.1159	40%	\$ 0.069540	1,869,428 CYDT	\$ 5,000
Tier 4	\$ 0.1159	35%	\$ 0.075335	2,157,032 CYDT	\$ 5,000
Tier 5	\$ 0.1159	30%	\$ 0.081130	2,403,550 CYDT	\$ 5,000

Private Sale Discounts

Presale

As part of a presale starting in May 2019, up to 81,000,000 CYDT tokens will be offered to prospective buyers at a 20% discount. The CYDT tokens to be sold during the private sale and the presale will come from the 345,000,000 CYDT tokens for sale plus the 20,000,000 CYDT token bonus. Unsold tokens will be made available in the next round.

- Soft cap: \$1MM USD
- Hard cap: \$7.5MM USD

Public Sale

For a period of 4 weeks, starting in the second quarter of 2019 but after the Presale, a maximum of 254,900,000 tokens will be available for sale according to the following discount scheme:

- First 20,000,000 tokens will be sold at 15% discount.
- For 24 hours after the first 20,000,000 CYDT tokens are sold, CYDT tokens will be sold at a 12.5% discount.

- Thereafter and for one week, tokens will be sold at a 10% discount.
- The second week, tokens will be sold at a 7.5% discount.
- No discount will be granted during the remainder of the Public Sale.
- Soft cap: \$5MM USD
- Hard cap: \$40MM USD

Development of technology

We anticipate that the technology will be fully developed during Q3, 2019.

And we anticipate that we will be recruiting both consumers and advertisers during this time frame.

THE CYDT TOKEN

It is through CYDT that Consumers, Advertisers and CYDigital interact. Consumers are rewarded for their participation with CYDT, Advertisers use CYDT to compensate CYDigital so as to access Consumers, and CYDigital rewards the Consumers and ensures there is always a supply of CYDT in reserve to maintain the ecosystem. CYDigital has established a minimum number of CYDT to be held in reserve so that the system always has CYDT available to reward Consumers and allow Advertisers to purchase CYDT. As a result, it may be incumbent at times for CYDigital to go back to CYDT holders and purchase their CYDT should the system run below its designated level of reserves. So the CYDT token will be in demand from Advertisers, from CYDigital, and/or

from parties interested in holding CYDT.

CYDigital will be using the ERC20 token as a utility token, where it plays a vital role in the CYDigital ecosystem (as described earlier in this white paper). Of the 1B CYDT minted, 9% will be available to CYDigital developers with a 12 month vesting schedule (where the full token amount will be available to the team after 12 months of continuous employment). In addition, 9% will be available to the CYDigital management team (including the founders) with a 12 month vesting schedule (where the full token amount will be available to the team after 12 months of continuous employment). The justification for

this allocation is to keep the core team onboard during the critical time of the company's timeline. Our chosen Investor Cabinet will allow us to mint the tokens before the presale and crowdsale, and will be the means by which CYDigital transfers tokens to CYDT purchasers. CYDigital has

selected Appicature as the 3rd party Investor Cabinet provider. CYDigital will advise the CYDigital community (CYDT purchasers, Consumers, Advertisers) as to where CYDT can be purchased or sold 2 weeks after the conclusion of the crowdsale.

WHY CYDT?

CYDigital has established a minimum number of CYDT to be held in reserve so that the system always has CYDT available to reward Consumers and allow Advertisers to purchase CYDT. As a result, it may be incumbent at times for CYDigital to go back to CYDT

holders and purchase their CYDT should the system run below its designated level of reserves. So the CYDT token will be in demand from Advertisers, from CYDigital, and/or from parties interested in holding CYDT.

ACCEPTED CURRENCIES

ETH / BTC / USD / EUR

CONTACT

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