

Unlocking The Next **3 Billion Consumers:** Integrate Emerging Digital Value With Today's Payment Ecosystem



INTEGRATE EMERGING DIGITAL VALUE WITH TODAY'S PAYMENT ECOSYSTEM

Abstract

Getting newer digital value form factors to interoperate with traditional payment systems that businesses commonly use today is the key to unlocking their full potential as fungible currencies and reaching the next 3 Billion consumers. Runa forecast that the market cap for digital stored value will constitute \$20 Trillion plus in market capitalization by 2030. Many of these assets are illiquid, stuck in consumers' digital wallets with expensive and inefficient processes of getting them into liquid form factors that can be used for everyday transactions. This whitepaper covers the friction points and opportunities that can be unlocked for everyone when digital value becomes more easily accessible and exchanged across the globe.



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The rapid global adoption of digital payments and the decline of physical cash has finally arrived. The demise of cash has long been predicted, but the tipping point really took hold during COVID-19. Consumer payment methods have been going through a long, slow digital transformation for the past 50 years and cash persisted throughout even in the most advanced economies. As of 2021, 76% of adults globally now have an account at a bank, financial institution, or with a mobile money provider¹. COVID-19 unlocked the true potential of digital payments for the global economy to the point where digital payments are now mainstream in almost every region of the globe.

Over the past 10 years, innovations in consumer payments have centered around real-time money movement, digital assets, and crypto. Digital value and its real-time movement will increase the velocity of the next wave of transformation in consumer payments. As consumers continue to earn, receive, and collect digital value in their everyday lives, they'll increasingly need ways to spend those stores of digital value in the mainstream economy. Similarly, businesses that can successfully connect to consumers with digital value will be able to earn new revenue from new consumer cohorts who will be ready and willing to spend their digital value with them.



A Brief History of Digital Value

Stored value and virtual currencies such as loyalty points, rewards, and gift cards have been around for decades and today represent a \$2 Trillion plus market cap, continuing to grow double-digit year over year². In 1980, American Airlines introduced AAdvantage frequent flier program, the first truly digital loyalty miles program, and planted the seeds of digital value. During this time, the first private branded prepaid phone and gift cards began to enter the market. The digitized stored value boom entered the mainstream in the early 2000s as physical cards, vouchers, and points became more digital with the growth of the internet and e-commerce.

The stored value payment ecosystem grew up separate from the traditional Visa, Mastercard, Acquiring and Issuing processors framework that is so familiar to many in the payments sector. The stored value ecosystem was built for the distinct purpose of processing prepaid assets, and branded currency. Companies like Blackhawk Networks and Incomm as well as processing platforms like SVS, GiveX, and First Data's ValueLink (now Fiserv) were formed to process and issue these assets. This stored value ecosystem provides the foundation for integrating new digital value form factors into the mainstream economy.



WHAT IS DIGITAL VALUE?

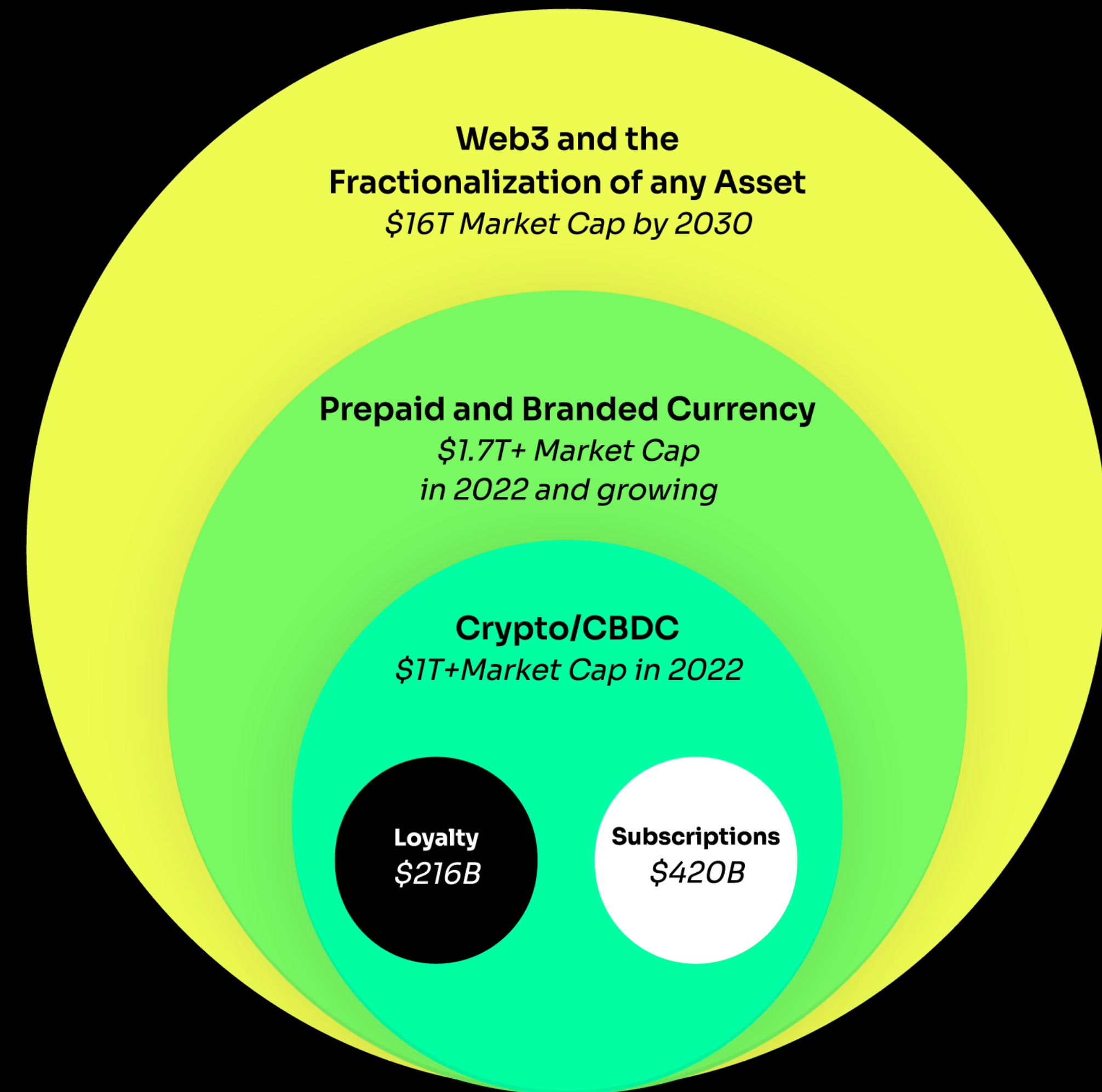
Digital value is any currency, electronic store of value, or medium of exchange that is managed, stored, or transacted on digital computer systems. Types of digital value include cryptocurrencies, central bank digital currencies, and virtual and branded currencies. These assets may be recorded on a private or public centralized internet database or a distributed ledger and can be owned by a company, organization, individual, or bank. Digital value is not part of the fiat currency system, does not reside in a depository account with a financial institution and is not part of any central bank fiat-based clearing systems.

Digital Value is Growing Exponentially

The global open-loop and closed-loop prepaid market is expected to reach \$3 Trillion by 2027³.

Tectonic Shifts in Digital Value Create New Opportunities

New digital value form factors have exploded in popularity over the past ten years with the growth and promise of decentralized ledgers. Cryptocurrencies represent payment instruments and infrastructures that promise to form a new rail to existing payment systems. Crypto now has a \$1 Trillion dollar market cap even with its 2022 devaluation. But it has yet to create this promise of a completely new payment rail. It is too often separated from the medium of exchange used for everyday purchases.



Digital Value can be classified into four categories:

1 Gift cards, digital cash, branded and virtual currencies currently make up the largest class of digital value.

Digital cash such as open-loop and closed-loop prepaid cards, branded currencies such as airline miles, loyalty, and gaming points add up to the largest class of digital currencies, valued at over \$2 trillion. Airline miles programs in many cases are worth more than the airline itself. American's AAdvantage program was last valued at \$37.6 billion while the airline was worth only \$21.2 billion⁴. The global open-loop and closed-loop prepaid market is expected to reach \$3 trillion by 2027⁵.

2 Crypto currencies have been the fastest-growing digital value.

Crypto might have lost some of its initial luster in 2022, but crypto's market cap is projected to reach the \$3 trillion point in 2030⁶. Lawmakers across the world are establishing new laws and guidelines to make crypto safer for investors and less appealing to criminals. Fintech companies like PayPal and Square have helped legitimize crypto and are betting on its long-term potential. Research shows that among tech-driven consumers, more than 1 in 3 (35%) prefer merchants that take crypto, with 26% saying they would go so far as to switch merchants to shop where crypto is accepted⁷.



3

Web3 assets will power an open standards virtual revolution.

The crypto boom has given birth to a new decentralized world of DAOs, NFTs, DeFi, and GameFi which are powering new ways of thinking about ownership and work and how value will be exchanged. The intent is that control is no longer centralized in large platforms and aggregators, but rather is widely distributed through decentralized blockchains and smart contracts. New solutions have started surfacing, and with every new use case value needs to be exchanged. The Web3 streaming service Sound.xyz promises a better deal for artists. Blockchain-based games, like the Pokémon-esque Axie Infinity, let users earn money as they play. The Bored Ape Yacht Club (BAYC), NBA Top Shot, and the crypto gaming giant Dapper Labs have built successful NFT communities.

4

Furthering Web3's impact the world is getting fractionalized and tokenized.

From whiskey and Air Jordans to ancient artifacts, the ability to fractionalize anything creates new digital value everywhere. The concept of asset fractionalization has been around for some time, with structures such as fractional shares, ETFs, and public REITs. In recent years, there has been a significant pivot with the emergence of asset tokenization players that now are using blockchain technology. These digital assets can be traded, stored, and transferred in the digital world. According to research and surveys from institutions like the World Economic Forum (WEF) and Deloitte, a large part of our future economy will be driven by the fractionalization and tokenization of both digital and physical assets. With a 50-fold increase predicted between 2022 and 2030, from US \$310 billion to US \$16.1 trillion, tokenized assets are expected to make up 10% of global GDP by the end of the decade⁹.

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Digital Value Categories

Gift, Prepaid and Branded Currencies

Gaming



Minecraft



Rocket League



Robux

Loyalty Points



Gift Cards



Airline Miles



Cryptocurrencies



Web3 Asset Wallets

Multichain Wallet



Ethereum Wallet



Binance Coin Wallet



Solana Wallet



Asset Fractionalization

Collectibles



Infrastructure



Real Estate



Fine Art



Friction and Inefficiency Dampen The Potential for Acceptance of New Digital Value

The largest friction point for any digital store of value is making it interoperate with other digital currency systems, as well as legacy fiat systems for everyday transactions. Traditional payments are structurally designed to slow innovation in the interest of risk mitigation for all participants on the network. These barriers have made sending or receiving digital currency outside its native ecosystem inefficient, with users usually paying a high tax in the form of conversion fees. Crypto natives will say “blockchain will fix this”, but that requires massive adoption and implementation by a well-entrenched bank-driven fiat ecosystem that has been slow to change thus far, even with a crypto boom.

Even the traditional universe of branded currencies act as walled gardens. Try paying for a restaurant tab with airline miles. It is possible, but not without jumping through several hoops, which require converting one branded currency into another branded currency, such as an airline mile to a gift card.

Payment industry solutions for accepting and processing digital currencies and emerging stores of digital value have been suboptimal. Most discussions have circled around “on and off ramps” instead of embedded currency conversion and direct usage and processing of the digital currency.



Most digital value acceptance solutions follow one of four paths:

1

Issue a digital currency-backed debit card that runs on Visa/Mastercard rails.

This approach has surged in popularity in the crypto segment¹⁰. Digital currency-backed debit cards from players such as Coinbase and Crypto.com cards come with high conversion fees (usually around 2%) and international transaction fees¹¹. They are reloadable, so the user needs to continue to pay the conversion fees and top-up. Furthermore, they all have spending limits that can restrict transaction size and the velocity of transactions on the card. Visa and Mastercard are known to pull the plug on specific issuer programs, leaving users out to dry¹².

2

Directly integrate wallets to POS and checkout providers and thus merchants.

Consider the multi-decade effort it has taken PayPal to gain scale as an in-store payment method. The journey has included multiple failed starts and stops (eg. PayPal Beacon), and multiple card network partnerships to get minimal POS market penetration. Most wallet providers and startup providers don't have such a long runway¹³. Furthermore, merchants are only interested in integrating proven wallets that will drive new customer acquisition and lower cart abandonment; A hard case for most crypto wallet and exchange providers that are not yet in the mainstream and can readily prove their business model.

3

Cash-out of digital currency with a closed-loop merchant gift card.

This use case is well established in the loyalty, rewards, and virtual currency segment, where consumers cash out of loyalty or gaming points for gift cards at their favorite merchants. Rakuten has an established partnership with Blackhawk, and Chase acquired cxLoyalty for gift card rewards content in 2020¹⁴. This solution has some uptake in the crypto ecosystem. Coinbase has partnered with WeGift in 2018 to allow their customers to convert their cryptocurrencies into digital gift cards¹⁵. Some merchants are weary of the risks of their cards being used in this manner so merchant options are limited.

4

Connect digital wallets to the stored value processing ecosystem.

Digital currency wallets and payment systems are connecting to prepaid processing platforms to get to the merchant's POS and settlement infrastructure. This non-Visa/Mastercard route lowers barriers to entry to get merchant acceptance and costs less than working with Visa and Mastercard's tokenization schemes. In 2022, Strike, a wallet and payment system built on the Lightning Network connected to Blackhawk and NCR POS Network to enable users to send and receive crypto across the platform¹⁶. These types of solutions hold promise, but scalability and reach are limited to the merchants in the universe of the processor and POS network. Wallet providers need to build infrastructure to integrate into the entire stored value ecosystem.

Additional unresolved gaps that plague businesses accepting and sending digital value:

RISKS AND FRAUD MONITORING.

With the prospect of fraud, data breach or non-compliance comes the risk of financial loss. Many of these digital currencies do not yet have the stringent security and risk protocols that traditional fiat payments have and thus make it an easy decision for merchants to avoid the risks.

SETTLEMENT AND RECONCILIATION.

Businesses don't want the risk of holding digital currency, and thus need the currency to settle in their preferred currency, in their preferred bank account. Additionally, back-office personnel can't be tracking down settlement files from a multitude of different processors for reconciliation. In order to scale, treasures and financial accounting staff need a single settlement and reconciliation file to easily manage back-office accounting.

RETURNS AND CHARGEBACKS.

One of the greatest features of traditional card networks is that of a chargeback. A customer has assurance and trust from the card network that if the merchant fails to deliver, their purchase is covered. Additionally, getting a return or refund is as easy as making a payment for the consumer. These protocols and processes have not made their way to most digital currencies.

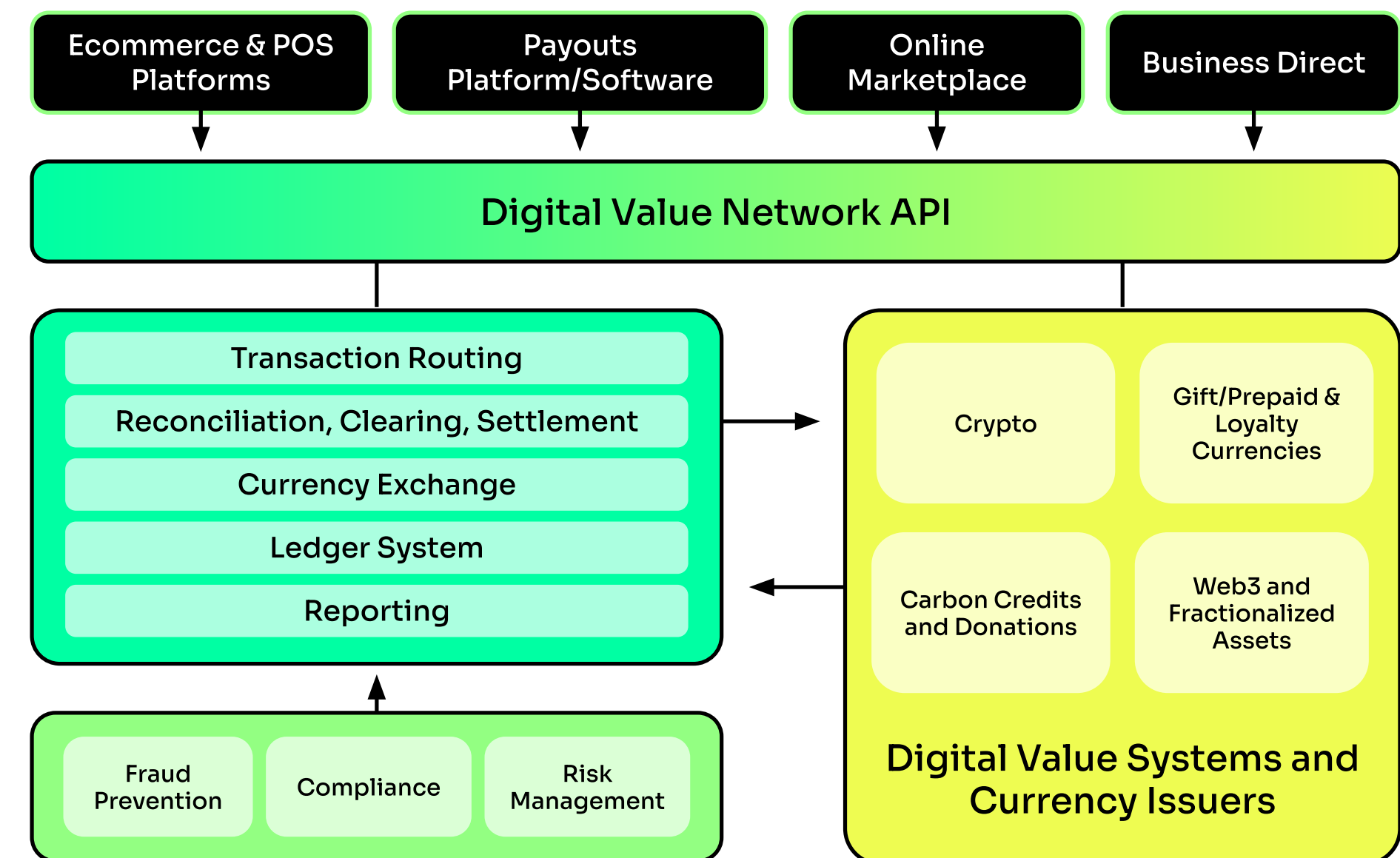
Digital Value Needs a New Digital Network

Unlock Digital Value By Tapping Into an Open Global Digital Value Clearing and Settlement Network

A global digital value network layer provides all the necessary API infrastructure and connectivity for handling different payment acceptance and payout types. The Network provides a single API layer of currency issuers, merchant connectivity, stored value processors, and technology providers. The network bundles users, merchants, wallet providers and aggregators, and fraud detection services to initiate, validate, route, and process transactions involving all parties. In addition, it handles payment processes such as reconciliation, billing and settlement, payouts, and reporting.

The network acts as a single entry point and prevents merchants from separately integrating various wallets, digital currency types, and exchanges. E-commerce platforms, online service providers, and software systems can consume the unified API of the payment network layer, benefiting from a reduced integration complexity. Moreover, a payment network layer simplifies the maintenance and further development of the system for platform owners and for merchants. In the same vein, it eases the interaction with 3rd party service providers and emerging wallet providers.

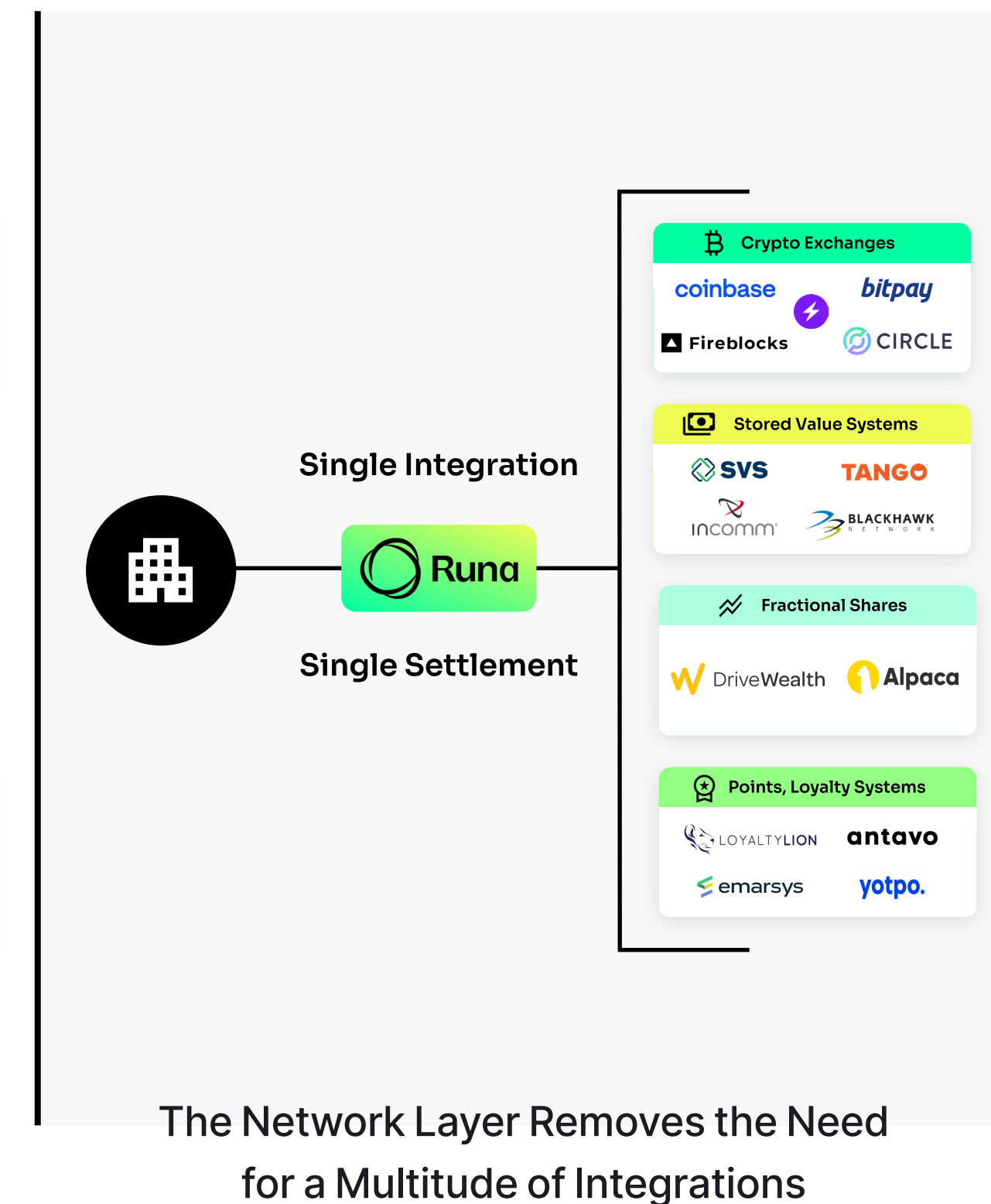
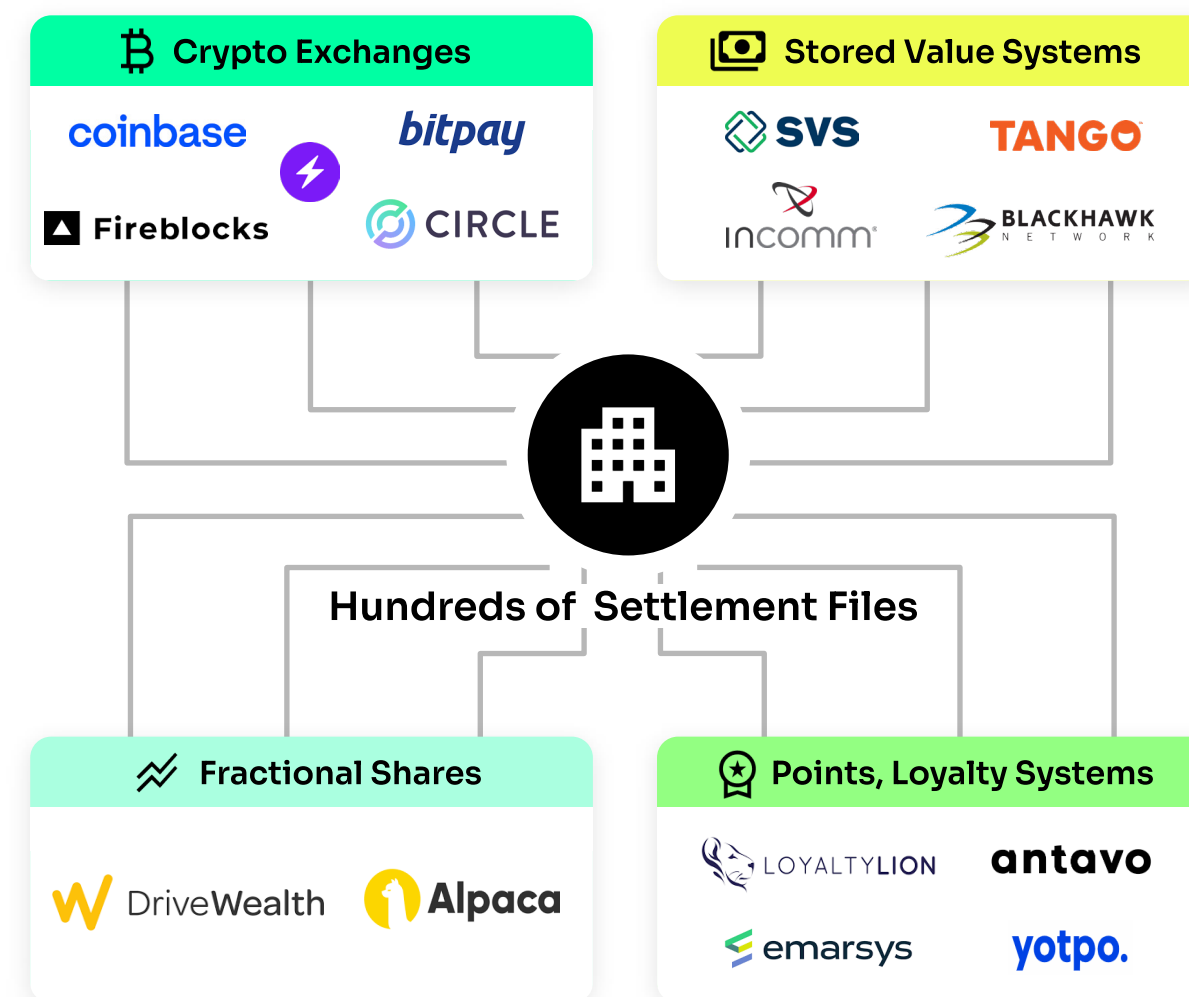
Digital Value Network Architecture



Global Digital Value Network Layer Benefits

Improved Scalability, Easier Integration.

Expanding into new consumer markets presents new business challenges. Along with regulatory compliance, the integration of payment types and new currencies can be challenging. A digital value network layer simplifies the process and offers flexibility through a unified API. The network layer eliminates the need for a multitude of integrations for businesses wanting to work with specific digital currency and asset types and regions. Businesses can launch new payment and payout options within a shorter timeframe and scale faster.



STREAMLINED CUSTOMER EXPERIENCE.

A digital value layer helps harmonize checkout flows for payment acceptance. The API enables an embeddable checkout process, during which it could surface a new set of payment method options to the customer, helping to increase the likelihood of the checkout converting to a sale. Furthermore, for payouts consumers can be offered new and exciting choices to be paid, increasing their loyalty and engagement with the program.

BETTER RECONCILIATION PROCESS.

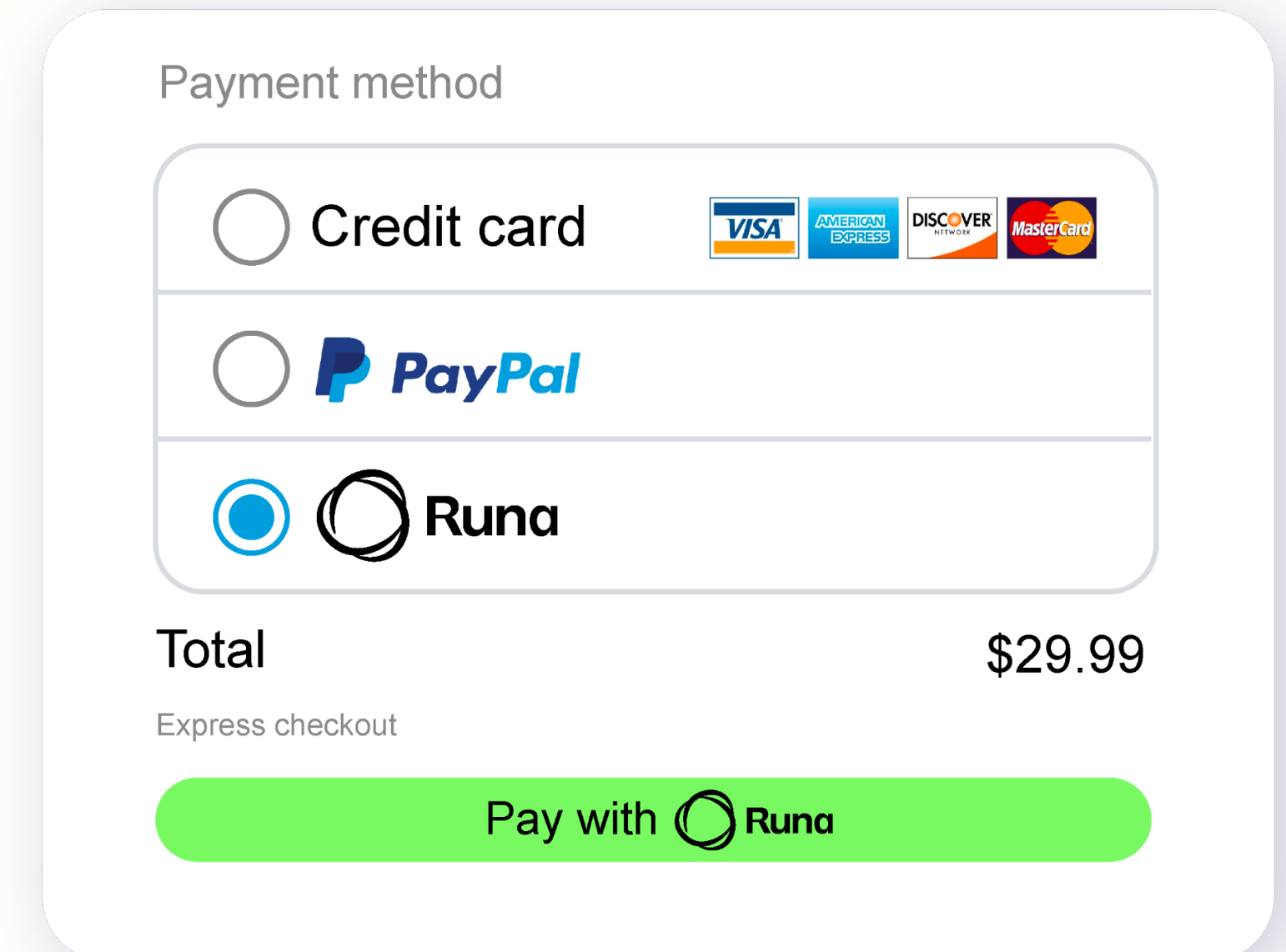
Because all of the payments and payouts are processed and reconciled at the network layer, businesses don't have to handle distinct reconciliation file formats or receive multiple settlements to their bank account.

NO PAYMENT METHOD LOCK-IN.





The digital value network layer can be used to catalog a wide selection of digital currency payment and payout methods. This gives the business and its customer's freedom of choice and flexibility. Businesses don't have to worry about the latest crypto digital wallet trend. It will already be integrated into the network when the business wants to take advantage of it. The network also future-proofs the business and insulates it from integrating payment or payout methods that will eventually fail.

IMPROVED DATA ANALYTICS & REPORTING.

A digital value network greatly simplifies data coming from the vast array of payment and payout types. Compiling data reports across different classes of digital currencies can improve accuracy and efficiency. Data can be easily shared, compared, and used for fraud detection services or financial authorities, for example.



Payment method

☐ Credit card    

☐ PayPal

☒ Runa

Total \$29.99

Express checkout

Pay with Runa

Example of a Runa checkout offering additional digital currencies embedded in a checkout flow

A Digital Value Network Unlocks The Next Wave of Use Case Innovation for Fintech and Payment Developers

Businesses and developers across the globe will access the network APIs to build new use cases that traditional payment rails have struggled to support.

The digital value network and infrastructure layer creates new opportunities in which value can be exchanged and distributed with vastly different unit economics than traditional card and banking rails. Businesses and developers across the globe will access the network APIs to build new use cases that traditional payment rails have struggled to support. Providing developers API access while changing the economics breaks the dam of use cases held back by card networks and traditional banking rails.

Merchants can easily build and scale their own decoupled debit program with rewards to save on interchange fees.

Target did \$100 Billion plus in revenue in 2022 of which 20% came from its own Target Red decoupled debit card. The Target Red card is linked to a consumer's bank account, allowing Target to avoid interchange fees on the ensuing consumer transactions. Target then passes these interchange savings fees into full retail pricing (5%) back to the consumer, helping to create a more loyal and engaged customer¹⁷. A Target Red Card like program can now be scaled by any merchant through the digital value network without having to cobble together multiple vendors and systems. The network infrastructure has the connectivity to the merchant's processing systems for stored value, with the ability to issue value while providing the ability to load and manage funds.

Crypto and Web3 digital wallet providers and merchants will access the network for consumer acceptance while increasing digital value liquidity.

Merchants will benefit by accepting new digital wallets and attracting new consumer cohorts to spend digital value at their stores. Digital wallet providers need paths to the POS and checkout to make their wallets viable for mainstream everyday spending use cases. Until now, that path has been traditional card rails and working with acquirers and issuers to get acceptance. Because the digital value network is already plugged into many POS and checkouts across the globe, developers of digital wallets can now access the network for acceptance, settlement, and reconciliation of their digital assets and value to create more liquidity for users.

Buy Now Pay Later services will tap the network for a direct line of access to the POS.

Similar to new digital wallet providers needing acceptance, direct settlement, and reconciliation with merchants, BNPL service providers need the same. Today, BNPL services like Affirm issue a temporary Visa or Mastercard card token to get merchant acceptance and settlement via the card network rails. The digital value network can issue a token on behalf of the BNPL service, and in the same way get acceptance and settlement with the merchant with lower costs, overhead, and complexity.



Improved transaction unit economics will spur innovation in micropayments.

Organizations need better ways to monetize digital goods and services to increase their reach by enabling consumption in small increments. Card interchange fees limit how businesses can package, price, and sell small increments of goods online. Transaction costs for a good that costs under \$1 can be over 30% of the transaction amount. To read a single article online or watch a video from a media provider online often means running into a paywall subscription model. The digital value network can transfer these small increments of value with small transaction fees instantly and require little friction between the parties exchanging the value.

Gig platforms and marketplaces will access the network for worker instant payouts.

Visa Direct, the platform for sending account-to-account payouts via cards has seen a surge since the Pandemic. Mainly due to the growth of gig-economy services using the service to pay workers. This instant bank transfer method has processing costs that are often passed onto the gig-workers to the tune of \$.50-\$1.99/transaction with some charging 1.99% of the transaction amount¹⁸. In many countries, gig workers would prefer the payout not land in their bank account due to the local complexities and costs of getting money out of their account. The digital value network can enable the global transfer of value to be spent directly with a merchant at zero cost, instantly. Imagine a driver choosing to receive part of their pay instantly, to be used like a credit where they are already buying their fuel, groceries, or everyday shopping items. All without the hassles of pulling the money out of their bank or incurring costs from their bank.

Gig platforms and marketplaces will access the network for improved expense management.

Many platforms today around the world issue instant Visa or MasterCard cards to drivers to purchase items the driver is delivering to the consumer. As soon as the transaction is complete, any remaining left-over balance is scrubbed from the card so the gig platform avoids any leakage. It's a convenient way for the gig platform to manage expenses, but also costly to the merchant. With direct access and settlement to the merchant, the digital value network could enable these transactions without the interchange cost. The elimination or reduction of interchange costs helps to offset some of the expenses incurred by the merchants from the platforms who charge as a percentage of the transaction.

Digital assets and the exchange of their value are set to become a mainstream part of the economy. Businesses, organizations, and merchants adapting to this unprecedented transition need support. Soon, it will be just as unimaginable for a merchant not to accept any form of digital value as it would be for them not to accept credit card payments. Not only are these digital value systems unable to interoperate effectively with legacy payment systems it is also impossible to exchange different stores of digital value with one another. Runa creates an infrastructure framework to enable all kinds of digital assets to be used, exchanged, coexist, and form one coherent digital payment network, seamlessly facilitating B2C, C2C, and C2B payments. Runa is providing a tangible solution to help people use the value that they have earned just as they would like.



About Runa

Runa is a digital value infrastructure and network that enables people to pay and get paid by anyone, anywhere, instantly. The Runa network reaches more than 1 billion people and instantly connects merchants, organizations, and individuals for fast, affordable, effortless, and data-rich payouts in more than 30 countries and 20 currencies.

Organizations of all types rely on Runa's infrastructure to power the movement of digital value and better serve their constituents. Runa provides direct connections to its network partners, enabling value to move more efficiently and economically than legacy solutions. Thousands of the world's top brands use Runa to reward, incentivize, and disburse funds.

Runa is headquartered in London with a globally distributed team. Our investors include Element Ventures, CommerzVentures, Clocktower Ventures, Volution Capital, AlbionVC, and SAP.



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How Fast Does A Gig Worker Get Paid? A Breakdown By App

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