

How Businesses Can Accept Cryptocurrency Payments



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Dear Partners, Investors and Friends,

The payments scene is undergoing a remarkable shift. With cryptocurrencies at their fastest rate of adoption last year, their imprint as a better medium of exchange is thrust even more into the spotlight. While many still associate cryptocurrencies with the speculative frenzy driven by the appreciating price of Bitcoin and the rest of its digital asset counterparts, their value to companies is so much more. Businesses that took the plunge in accepting crypto assets understand the shortcomings of traditional payment methods, and digital assets provide them a different avenue to transact in a much cheaper and faster way. Such companies also recognize the rapid user growth and capital flowing into the industry, making the opportunity to tap into it too difficult to ignore.

Cointelegraph Research's "How Can Businesses Accept Cryptocurrency Payments" report takes a deep dive into how businesses can follow the lead of big-name firms like Microsoft, Gucci, AT&T, PayPal and several others in integrating cryptocurrency acceptance into their operations. We take you through how digital assets are revolutionizing payments, the firms leading the charge and their methods of doing so, and the simple ways regular businesses can partake in this emerging trend.

Please enjoy reading this report, which is the latest addition to our growing library after the highly acclaimed "GameFi: Can Blockchain-Based Gaming Redefine The Industry?" and "Why Are Crypto Funds Investing In Dash?" reports. You can find these reports and all our previous research papers, databases and reports of our research partners on the Cointelegraph Research Terminal, the "Bloomberg of Crypto."

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Sincerely

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Ron has worked in business development for several investment firms in Dubai and Abu Dhabi for more than six years. He has been covering cryptocurrency, blockchain, and fintech topics for several publications since 2019.



Key Takeaways

- In contrast to the recent past, when digital currencies were used as a means of payment by very few businesses run by crypto enthusiasts, nowadays, more and more **companies are willing to accept crypto thanks to low fees, fast transaction speeds and the security it offers.**
- A wide range of **companies from different industries already accept cryptocurrency.** The list includes Subway, PlayStation, AT&T, Home Depot, Whole Foods, along with many others, and keeps expanding.
- Not only companies but also whole countries greenlight digital currencies. **El Salvador and the Central African Republic have already adopted Bitcoin as a legal tender**, and Panama along with Paraguay might do so as well in the near future.
- **Most companies employ a gateway to process cryptocurrency payments.** Circle, TripleA, Alchemy Pay, 7StarPay, ForumPay and BitPay are examples of such gateways that differ by the number of digital currencies and countries supported, transaction fees, minimum payments and other parameters.
- Businesses that accept digital currencies for payments can either convert their profits into fiat straight away and avoid inherent volatility of cryptocurrencies or **stake their coins using decentralized finance protocols and potentially benefit from high yields they offer.**
- Adoption of cryptocurrency payments is spurred by consumer demand: **Crypto.com reported in late 2021 that approximately 75% of its clients would have paid in crypto for goods and services** had such an option been available.
- **Merchants that keep some of their funds in crypto should be aware that they might be subject to capital gains tax.** If a merchant receives crypto and keeps it in their wallet, they have to record its established value in fiat money due to the exchange rate at the moment of acquisition. Then, after the merchant actually sells this crypto for fiat, realized gain is calculated and taxed as a capital gain according to IRS rules.

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Introduction

The technological shifts around payments have centered on developing a safer, more efficient, and more convenient way to carry out transactions. Going cashless was already a trend more than a decade ago, but the onslaught of the COVID-19 pandemic in 2020 only played up its importance.¹ With the transaction value of digital payments ballooning to \$6 billion in 2021 and is expected to further increase in the years ahead, the dependence on electronic transactions for exchanging value has become more apparent.² Furthermore, the changing buying behavior and banking practices have led consumers and businesses to turn to emerging payment tools.³

Cryptocurrencies have become a viable candidate in the payment space due to their numerous advantages compared to their traditional counterparts. A few examples of this are the faster settlement times and reduced cross-border friction, inspiring even the world's central banks to consider digital versions of their fiat currencies.⁴ The market, in general, is still relatively small. It was estimated to be worth \$800 million two years ago, but that figure is expected to grow at a compound annual growth rate of 29.5% to \$5.2 billion by 2028.⁵ By contrast, the global digital payments market was worth \$5 trillion in the same year, indicating how vast the potential of cryptocurrencies has still yet to penetrate as a payments method.⁶

What are cryptocurrency payments?

Essentially, cryptocurrency payments are transactions with decentralized cryptocurrencies as the medium of exchange. Cryptocurrencies are digital currencies stored on a decentralized and distributed online ledger using blockchain technology. It allows users to exchange monetary value without the need for banks or other financial institutions to act as intermediaries in verifying transactions.

Bitcoin was the first cryptocurrency introduced to the world via its famous white paper as a peer-to-peer electronic cash-based system.⁷ Over the years, the price of Bitcoin (BTC) has increased substantially, growing from a price at which 10,000 BTC was just enough to buy a pizza but would be able to acquire an NHL team

at its value today. However, this considerable price appreciation is precisely why users are often discouraged from using Bitcoin for everyday payments. Bitcoin can surge in one day only to see a steep decline in value the next. Aside from this, the rate at which Bitcoin processes transactions is comparatively slower than its mainstream counterparts. Visa, for example, can process 370 times more transactions than Bitcoin per second.⁸ There is also a good reason to believe that users prefer to hold Bitcoin long-term than use it for daily expenses because of its investment characteristics. As time went on, new generations of blockchain cryptocurrencies improved transaction times, such as Ethereum, Solana, Fast Access Blockchain, Polkadot and Algorand.⁹ These blockchains purport to have 1,000 to 50,000 or more transactions per

¹ See "COVID-19: the viral spread of cashless society?", Piotr Filipiak, Financial Times, November 11, 2020

² Learn more about Digital Payments Worldwide [here](#)

³ See "New: Report Capturing the Global Cryptocurrency Payments Opportunity", PYMNTS, October 11, 2021

⁴ Learn more about CBDCs [here](#)

⁵ See "Global Cryptocurrency Market Size & Share Worth USD 5200 Million Globally, at a 29.5% CAGR by 2028: Industry Trends & Forecast by Facts & Factors", Facts and Factors, February 16, 2022

⁶ See "Global Digital Payments Markets Analysis & Forecasts, 2015-2020, 2020-2025F, 2030F Featuring Alipay, Amazon Pay, Apple Pay, Tencent, Google Pay, First Data, Paypal, Fiserv, Visa, and MasterCard", Research and Markets, GlobalNewswire, December 10, 2021

⁷ See "The Scaling Report: Does the Future of Decentralized Finance Still Belong to Ethereum?", Cointelegraph Research

⁸ See "The Blockchain Scalability Problem & the Race for Visa-Like Transaction Speed", Kennie L., January 30, 2019

⁹ For a detailed look at these next generation blockchains see the Cointelegraph Research report [here](#)



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Our Payments Solution



Free up working capital

Eliminated pre-funding requirements and flexible repayment terms help unlock trapped capital



Offer lower cost payments

Pre-negotiated FX and payout fees provide customers with competitive last-mile payment rates



Send faster payments 24/7/365

Real-time settlement speeds up delivery regardless of funding source or destination



Expand into new markets

One seamless integration enables easy access and connection to new payout regions through premier receivers

Our Company

10

Years in business

50⁺

Countries in-market

500⁺

Employees worldwide

9

Global offices

15^B

Payment volume
run rate

Carbon net zero by
2030

Our Customers

By joining Ripple's growing global network, banks and financial institutions can offer a better experience to their merchant and retail customers, and process customer payments anywhere in the world instantly, reliably and cost-effectively.



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Beyond payments, for customers who are interested in sourcing crypto to use or provide to their customers, Ripple offers Liquidity Hub: a plug-and-play platform that makes it easy for companies of any size to buy, sell or hold crypto internally or on behalf of their customers—absent the time, resource or capital commitments normally required to do so. Merchants and retailers can quickly and easily bring crypto to their customers while simultaneously building new revenue streams.

Learn more and join the movement at ripple.com or [contact us](#) today.

second. As these blockchains evolve, it is apparent that they will overcome the old systems limitations. However, these still do not overcome the issue of fluctuations against the native currency of a given country. Thus, the creation of stablecoins came about.

Stablecoins

Stablecoins maintain their stability via collateralization, usually with fiat currency, but it can also be gold or even other cryptocurrencies. Tether ([USDT](#)), for instance, which was one of the first stablecoins created in 2014, is a common choice for traders to lock in their dollar gains in cryptocurrency exchanges. Tether is issued by Tether Limited, a company based in Hong Kong that maintains equivalent fiat reserves of each issued token. Another stablecoin is [Dai](#), but unlike Tether, its peg is not maintained by a private entity. Dai is collateralized by

an excess supply of another cryptocurrency, which, in this case, is Ether. However, stablecoins are not typically used for payments but rather as a temporary parking space against volatility. Compared to fiat, converting other cryptocurrencies to stablecoins makes it easier for traders to move their money around.

Payment tokens

Lastly, payment-focused tokens and cryptocurrency payment gateways exist, which put digital assets at the center of day-to-day transactions. An example is [Dash](#), a cryptocurrency billed as digital cash that offers instantaneous transactions with minimal fees.¹⁰ Another is Alchemy Pay, a payments system that allows cryptocurrencies as payment for a product or service, which are then converted to fiat currency in real-time for merchant settlement.¹¹

Figure 1 Types of Cryptocurrencies for Payments

	Payment Tokens	Stablecoins	CBDCs
Description	Cryptocurrencies designed specifically to facilitate payments.	Cryptocurrencies designed to maintain a stable value by maintaining a peg to other assets, such as fiat, commodities or other crypto assets.	Digital assets backed by the government.
Issuer	Private entity	Private entity	Central banks
Example	XRP , Dash, Alchemy Pay (ACH)	Tether (USDT), USD Coin (USDC), Dai	eNaira, Sand Dollar

Source: Cointelegraph Research



What problems does crypto face as a payment instrument and how can they be tackled?

There are 6 defining characteristics of currency — durability, portability, uniformity, limited supply, divisibility, and acceptability. Crypto is arguably superior to traditional currencies in five of those characteristics, yet still lacks general acceptability. ForumPay solves that problem by instantly converting crypto payments to the merchant's preferred fiat currency the moment a purchase is made.

Another problem with crypto is its high volatility. By ForumPay enabling crypto payments for daily transactions, crypto volatility is naturally diminished resulting in higher values.

How can blockchain-based solutions help merchants and why are they important?

Blockchain technology promises to facilitate fast, secure, and low-cost international payment processing services through the use of encrypted distributed ledgers that provide trusted real-time verification of



Joshua Tate,
CEO of
ForumPay

¹⁰ Learn more about Dash with Cointelegraph Research's report [here](#)

¹¹ Learn more about payment tokens like Alchemy Pay [here](#)

transactions without the need for intermediaries. However, there are very few true blockchain-based solutions on the market. Of them, ForumPay is a processor that provides instant and transparent conversion, spot pricing with the best execution, and no exchange loading for the merchant or the consumer. We own and operate our own exchange that also connects to exchanges globally to ensure the best execution without dependency on third-party exchanges.

What can boost the mass adoption of crypto payments?

Many companies in the industry are failing to reach widespread adoption because their payment solution requires a specific cryptocurrency or a specific wallet. So, it is crucial to build a solution that is agnostic to either of the two. With ForumPay you can pay directly from the wallet of your choice in the cryptocurrency of your choice — no dedicated apps are needed in the process.

1.2

Why do businesses want to accept cryptocurrencies?

There are several reasons why businesses would prefer cryptocurrencies as the mode of payment. For starters, it could be that a company wants to capture the demographic group that's more accustomed with cryptocurrencies, coinciding with a study conducted last year that revealed how the majority of crypto owners are interested in using their holdings for making online purchases.¹² Another reason why companies may view crypto as a better payment alternative is it caters to consumers' growing preference for mobile payments.¹³ Regardless of the reason, companies may opt for cryptocurrency payments because of certain advantages that can be boiled down to flexibility, lower fees, better security, faster settlement times and zero chargebacks. These are further elaborated on below.

Lower fees

While credit card companies such as Mastercard and Visa delayed increasing processing fees for two straight years due to the pandemic, it is likely that this won't be the case beginning April 2022.¹⁴ Typical credit card processing fees cost 1.5%–3%, which is exclusive of

the payment processor's cut.¹⁵ PayPal is also another common payments method, and it has much higher charges ranging from 1.9% to 3.5% plus a fixed fee.¹⁶

Of course, transacting with cryptocurrencies isn't completely costless. Heavily trafficked networks such as Bitcoin and Ethereum are often criticized for their high fees. Bitcoin even reached an all-time high of \$62 in average transaction fees in April last year, while Ethereum surpassed this sum with \$70 one month later. Nonetheless, average fees for Bitcoin have gone down considerably and have remained under \$5 since the latter half of 2021. Ethereum, on the other hand, remains relatively high, but users are expecting fees to drop once Ethereum 2.0 goes live. At the same time such blockchains as Solana, Avalanche, and Fast Access Blockchain feature transaction fees that are substantially lower than those of Ethereum.

The good news for merchants is these network fees are usually shouldered by the sender of the crypto, which, in this case, is usually the customer. Crypto exchanges that process cryptocurrency transactions may even charge lower than 1%.

¹² See ["New study reveals high demand for payments in cryptocurrency"](#), Helen Partz, Cointelegraph, August 3, 2021

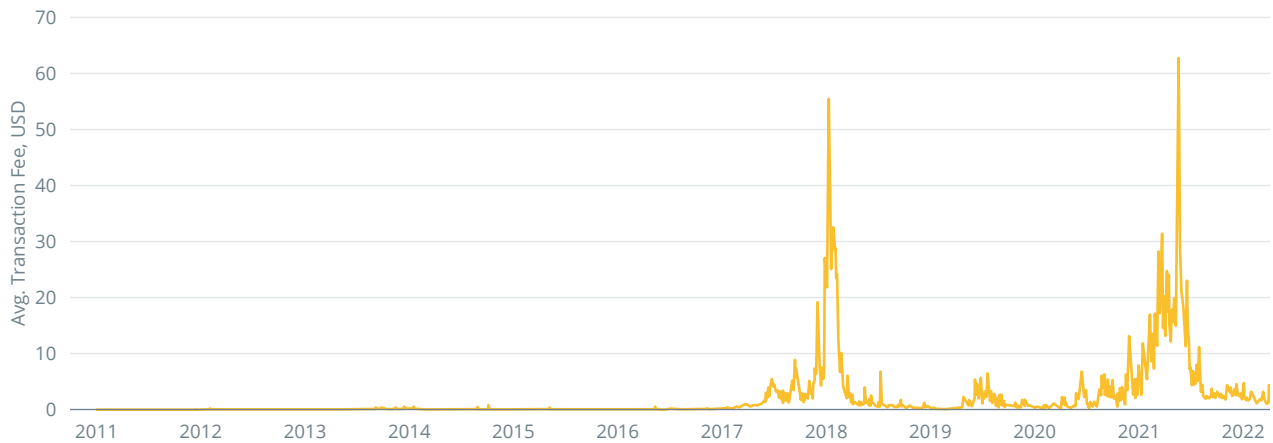
¹³ See ["Mobile Payment Statistics & Facts 2022 for Marketers"](#), Emizentech, November 7, 2021

¹⁴ See ["Visa, Mastercard Prepare to Raise Credit-Card Fees"](#), AnnaMaria Andriotis, The Wall Street Journal, March 8, 2022

¹⁵ See ["Average Credit Card Processing Fees and Costs in 2021"](#), Lyle Dally, The Ascent, April 13, 2021

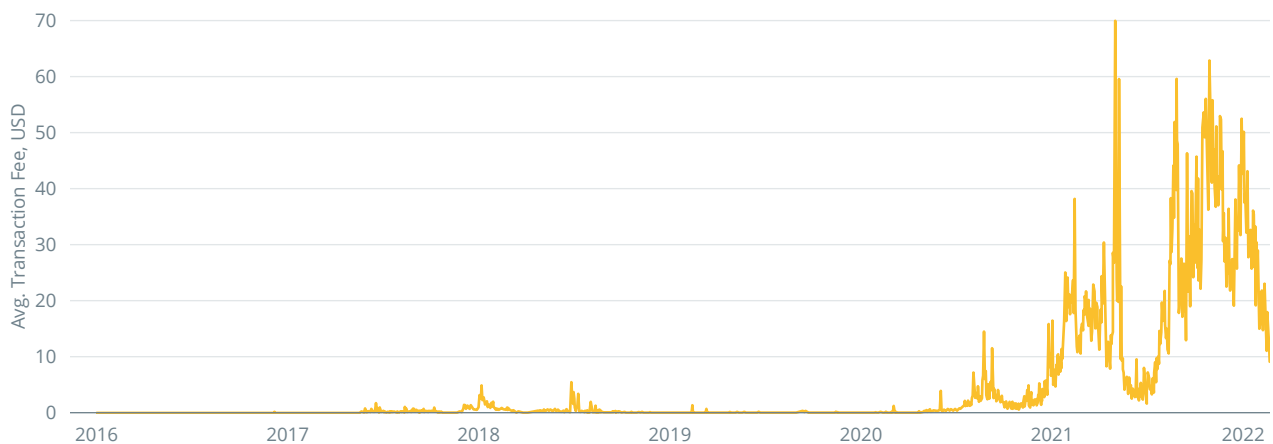
¹⁶ Learn more about PayPal fees [here](#)

Figure 2 Bitcoin Average Transaction Fees



Source: BitInfoCharts

Figure 3 Ethereum Average Transaction Fees



Source: BitInfoCharts

Better security

In 2019, a hacking incident affected 100 million customers and credit card applicants of American bank holding company Capital One. Former Seattle technology company software engineer Paige Thompson was named the culprit. Thompson hacked into Capital One's server and gained access to thousands of Social Security Numbers, bank account numbers and customer information.¹⁷ Despite Thompson being indicted for the cybercrime, it still shows how even a financial powerhouse like Capital One can be vulnerable to data breaches. To make matters worse, Capital One was also fined \$80 million in 2020 for failing to keep its financial data secure, which resulted in the incident.¹⁸

With cryptocurrency payments, information about customers is not stored in a centralized database and is not even recorded at all. Instead, the underlying technology of cryptocurrencies, blockchain, consists of several decentralized nodes comparable to small servers that only keep copies of the global ledger of transactions. Nodes must reach a consensus on the validity of a transaction before being added to the ledger, making fraudulent transactions a lot more unlikely since there's no single point of failure.

These nodes also make it possible for cryptocurrencies to do without intermediaries in verifying transactions since each block of transactions is recorded using an immutable cryptographic signature called a hash, and only authorized users can access the data being transmitted.

¹⁷ See "A hacker gained access to 100 million Capital One credit card applications and accounts", Rob Mclean, CNN Business, July 30, 2019

¹⁸ See "Capital One is fined \$80 million for huge data breach", The Associated Press, Fortune, August 7, 2020

Faster settlement

Most merchants know the time lag between when a customer pays for a transaction versus when the funds reflect in the merchant's bank account, usually taking from three to five days — or even weeks. The processing bank slows down the settlement time, as it communicates with multiple parties involved in the transaction. Payments processors, for instance, would have to go through several channels, such as originating banks and clearinghouses, before the funds get to the merchant's bank account. The entire process

gets a bit muddier when cross-border payments are involved.

On the other hand, the lack of a need for intermediaries enables cryptocurrencies to settle transactions instantaneously, making domestic and international settlements a lot faster. The rate at which blockchain nodes communicate to one another and have a clear record of transactions makes the ledger systems of banks worldwide look sluggish. Even a payments company such as Visa started allowing payment settlements in cryptocurrencies in 2021.¹⁹

Figure 4 Cost and Settlement Times of Different Payment Methods

Payment Method	Cost	Settlement Time (approx.)
Credit card/debit card	1.3%–3.5% + payment processor's cut	1–3 days
PayPal	1.9%–3.5% + fixed fee	Up to 21 days
Apple Pay	Credit/debit card costs	1–3 business days
Amazon Pay	2.9% (domestic) or 3.9% (cross-border) + authorization fee + tax (where applicable)	3–5 business days
Cryptocurrencies	Up to 1%	Instant in most cases but may take up to 1 business day with certain payments processors

Source: Cointelegraph Research

No chargebacks

Chargebacks are a costly threat to businesses. Last year, e-commerce merchants lost about \$125 billion to chargebacks due to lost orders, technical issues, incorrect deliveries, misuse, or even outright fraud.²⁰ Chargebacks are, of course, a tool for customers to prevent merchant abuse, but fraudsters quite often exploit this consumer protection policy to their advantage. The fraud type chargeback starts with a

legitimate dispute even though the one filing it has rightfully received the agreed product or service.

With cryptocurrencies, chargebacks are eliminated simply because transactions are final — i.e., transactions cannot be reversed. Once a transaction has been recorded, and the customer's payment has been settled with the merchant, the buyer will have to file a dispute and provide evidence of a violation of the contract terms to receive a chargeback from the seller.



Accepting crypto payments opens up your business to new users and heights as it exposes you to the 300M+ crypto owners internationally that are investing or getting paid with crypto. Besides increasing sales, crypto processing improves profit margins as it is more cost effective than traditional payment methods. At TripleA, we offer our merchants to be at the forefront of the crypto space with a regulated and safe solution. As a licensed entity fully compliant with both FATF and MAS's AML/CFT regulations, our goal is to protect merchants from any risks, including chargebacks and volatility thanks to our instant confirmation feature and next-business-day bank settlements.



Eric Barbier,
founder and CEO
of TripleA

¹⁹ See "Visa moves to allow payment settlements using cryptocurrency", Reuters, March 29, 2021

²⁰ See "Why eCommerce Merchants Lost \$125 Billion to Chargebacks in 2021", Loss Prevention Magazine, March 8, 2022

Companies that accept cryptocurrencies

Bitcoin bar

Businesses adopting cryptocurrency, particularly Bitcoin, as payment can be traced back to 2011 with a bar in Berlin, Germany called Room 777. It was the first bar and perhaps the first venue to ever accept Bitcoin at that time. Before closing down its operations in 2020 due to the pandemic, the bar owner thought that Room 777 would only last for a couple of years but ultimately found decent success and even became a hotspot for early Bitcoiners.

Getting recognized

The years that followed saw companies warming up to Bitcoin. One of the significant moves that placed Bitcoin in the media spotlight was Virgin Galactic as it started accepting Bitcoin as payment for its commercial space flights in 2013.²¹ A year later, several other companies such as Microsoft, Dell, Zynga and PayPal have jumped on the bandwagon, marking the early foray of companies into cryptocurrencies. For a payment processor like PayPal, the move to allow merchants to accept Bitcoin as payment for digital goods such as online games and downloadable songs was significant. BitPay, Coinbase and GoCoin were the companies it worked with to make it possible. Earlier that year, Stripe also started accepting Bitcoin transactions, which could have influenced PayPal's decision.

Hitting mainstream

When Ethereum came in 2015, it marked a significant turning point for cryptocurrencies, as it introduced smart contracts, enabling programmability to the technology behind Bitcoin, and offered more sophisticated procedures other than a record of transactions. Blockchain projects with communities behind them proliferated and venture capital interest soon followed. By 2017, venture capital investments in the crypto space reached the billion-dollar threshold and multiplied in the subsequent years. From

2019 to 2021, a 281% increase in venture capital activity was exhibited, primarily due to the COVID-19 pandemic and a major boost in crypto mainstream adoption.²²

"Competitive edge"

The growth in adoption has put cryptocurrencies in the spotlight of payments, wherein companies increasingly see the value of integrating digital assets into their businesses. Last year, a study surveyed 501 financial decision-makers across several large companies and small and medium-sized enterprises in the United Kingdom. Most of the respondents believe crypto payments will give companies a competitive edge. The study also highlighted how more than one-third of businesses reported that customers had asked to pay in Bitcoin, Ether (ETH) or another digital currency, further underscoring customers' growing preference for cryptocurrency payments.²³

Legal tender

2021 was indeed chockfull of several meaningful events on cryptocurrency adoption, but nothing could be more significant than El Salvador's move to add Bitcoin as a legal tender, which today serves as a litmus test for how crypto can be integrated into everyday life. The country that recognized only the greenback as the sole legal tender in the past has accumulated about 2,801 BTC worth \$63 million (Figure 5) at the time of this writing. That total includes El Salvador's most recent purchase amid the crypto market meltdown in May for 500 BTC at an average price of \$31,000.

Aside from El Salvador, the Central African Republic has also adopted BTC as legal tender.²⁴ Essentially, the motivation for accepting Bitcoin is the financial inclusivity it offers. Many citizens remain unbanked in El Salvador, and the same could be argued for most of Latin America. El Salvador has about 70% of its population unbanked and 85% for the Central African Republic.²⁵

²¹ See "Richard Branson: Buy your space flight with bitcoin", Matthew J. Belvedere, CNBC, November 22, 2013

²² Read Cointelegraph Research's 2021 venture capital report [here](#)

²³ See "Retailers to drive crypto payments adoption: Survey", Joseph Hall, Cointelegraph, December 23, 2021

²⁴ See "Central African Republic will adopt Bitcoin as legal tender: Report", Turner Wright, Cointelegraph, April 27, 2022

²⁵ More about G20 Financial Inclusion Indicators [here](#)

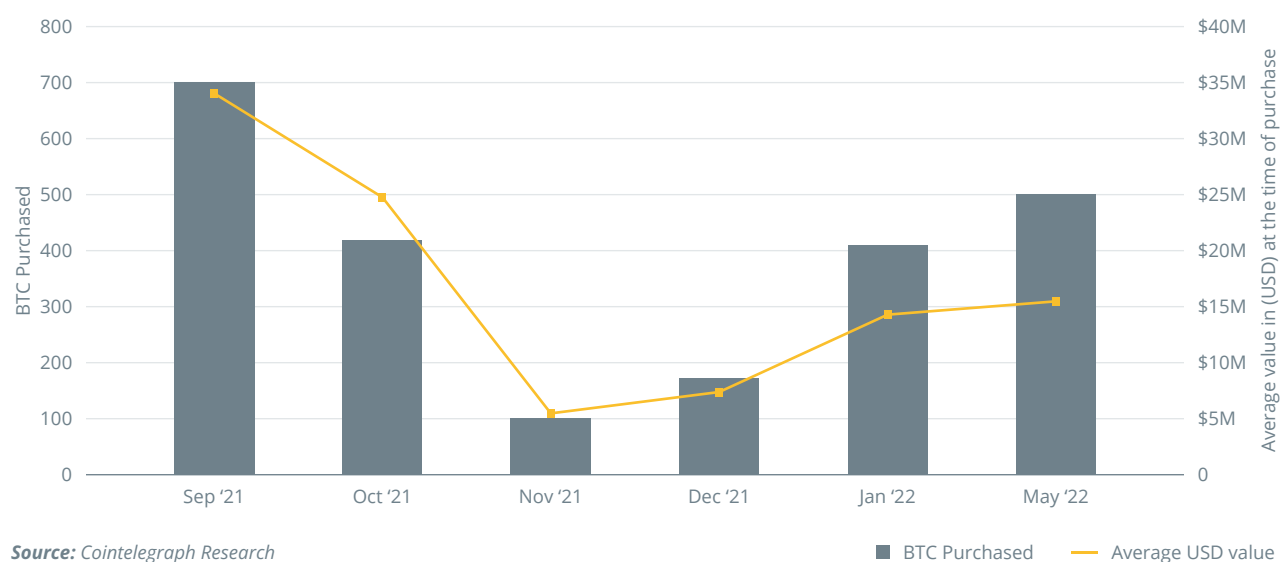
Panama is the nation that could accept BTC as legal tender next.²⁶ The country of 4.3 million people has even drafted legislation to make Bitcoin legal tender on the same day that El Salvador officially adopted BTC. Panama's legislature has also approved a bill to regulate crypto, which gives residents and businesses the option of using and accepting crypto. The bill differs from El Salvador's since it doesn't require local businesses to accept Bitcoin.

After Panama, Paraguay, another Latin American country, could embrace Bitcoin as an official currency soon. Paraguay has already passed a bill to its Senate that has been covering the taxing and regulation of cryptocurrencies since December 2021. The country is also tagged as a "mining oasis" thanks to the cheap

energy it produces through its immense hydroelectric power plants and its consistently stable electricity tariffs.

Lastly, Brazil is the third most likely candidate to make Bitcoin legal tender. Brazil made headlines recently for passing new legislation to regulate the crypto market in the country, which is expected to be approved by the National Congress in the first half of 2022.²⁷ The law allows the government to assign or create a regulatory body to oversee business with crypto. Moreover, the law incentivizes Bitcoin miners to set up shop in the country by exempting taxes on importing ASICs. Notably, Paraguay's Itaipu dam has an overproduction of 5,500 megawatts of hydroelectric power that is mostly being sold to Brazil at a cheap price.²⁸

Figure 5 El Salvador's Bitcoin Purchases and Total Holdings



2021–present

Electric car maker Tesla began accepting Bitcoin as payment last year after its headline-making purchase of \$1.5 billion worth of Bitcoin in February but backtracked on this decision and called out miners to use cleaner energy.²⁹ PayPal also joined the bandwagon in creating an avenue for users to spend their crypto holdings. It introduced a crypto checkout feature where users can pay for goods and services at approved vendors using their stored coins, which get converted to fiat at the time

of sale.³⁰ Visa has also integrated crypto payments and turned to stablecoin USDC for transaction settlements. Other financial firms, such as BNY Mellon, BlackRock and Mastercard, have also warmed up to cryptocurrencies.³¹

Companies across several industries, from food and beverage to insurance, are accepting or have started accepting cryptocurrencies (Figure 6). Nearly 30,000 merchants already accept Bitcoin worldwide, and that list is still expanding.³²

²⁶ See "Panama's legislature approves bill regulating crypto", Turner Wright, Cointelegraph, April 28, 2022

²⁷ See "Brazilian Senate announces incoming approval of the Bitcoin law", Cassio Gusson, Cointelegraph, April 13, 2022

²⁸ See "How one of South America's biggest dams became a Bitcoin battleground", Laurence Blair, Rest of World, January 4, 2022

²⁹ See "Elon Musk says Tesla now accepts Bitcoin from US customers", Greg Thomson, Cointelegraph, March 24, 2021

³⁰ See "PayPal to start letting US customers pay in Bitcoin at global merchants" Greg Thomson, Cointelegraph, March 30, 2021

³¹ See "Visa moves to allow payment settlements using cryptocurrency", Noor Zainab Hussain, Reuters, March 29, 2021

³² Learn more about where else Bitcoin is accepted [here](#)

Figure 6 Map of Major Companies That Accept Cryptocurrencies



Source: Cointelegraph Research

The major companies that accept Bitcoin do so in different ways. Businesses can either accept on-chain payments via a peer-to-peer interface or use a crypto payments processor (this is explained further in the next section). For example, Tesla opted to create its own infrastructure to accept Bitcoin payments. It ran a Bitcoin client in order to operate its own wallet and even stressed that the Bitcoin it receives will not be converted to fiat. The advantage is that Tesla doesn't have to rely on an external party to manage its funds. However, not all companies would want to go down the same route as Tesla, so some employ payments processors.

Coca-Cola partnered with Centrapay and Sylo Smart Wallet in 2020 to accept Bitcoin in over 2,000 smart vending machines in New Zealand and Australia. Customers are able to simply scan a QR code and send payments in Bitcoin to purchase a can of coke. Starbucks also opted to work with a third-party provider to accept crypto payments. Last year, Starbucks, through Bakkt's digital wallet, enabled customers to load their Starbucks cards using crypto.

Crypto has also penetrated professional sports. Before the Staples Center was renamed "Crypto.com Arena" and the American Airlines Arena "FTX Arena," the first-ever sports team to warm up to crypto was the Sacramento Kings. The National Basketball Association (NBA) team started accepting Bitcoin for game tickets and merchandise in 2014 and utilizes the payment processor BitPay, which enables the Kings to receive Bitcoin but realize it in fiat. Another NBA team, the Dallas Mavericks, did the same thing in 2019 and employed BitPay as well to process crypto payments.³³

Gucci is the most recent big-name brand to join the trend. The luxury brand plans to accept crypto payments before the end of May 2022 and extend the service to all of its 111 stores in North America. Such in-store transactions will involve a link sent to the customers' email with a QR code to make a payment. Apart from Bitcoin, Gucci also plans to accept Bitcoin Cash (BCH), ETH, Wrapped Bitcoin (WBTC), Litecoin (LTC), Shiba Inu (SHIB), Dogecoin (DOGE) and five United States-dollar stablecoins.³⁴ Other luxury brands ahead of Gucci in crypto acceptance are Off-White and Philipp Plein.

³³ See "The Dallas Mavericks Are Now Accepting Bitcoin", Doyle Rader, Forbes, April 23, 2019

³⁴ See "Gucci the latest luxury brand to accept crypto payments in store", Jesse Coghlan, Cointelegraph, May 5, 2022



How can carbon-neutral crypto enable faster, more sustainable payments?



David Schwartz,
CTO at [Ripple](#)

The traditional payments infrastructure is slow, costly, and resource-intensive. Merchants and retailers accepting credit and debit card payments are kept waiting for credit card companies to pay them for each transaction — anywhere from a few hours to a few days. Not to mention the environmental cost associated with printing, minting, and distributing cash which is estimated to be upwards of \$13 billion annually for USD. When it comes to cross-border payments, the current system is even more painful for both sender and receiver: tying up capital in destination markets to pre-fund accounts, taking multiple days for a transaction to process with no visibility as to the status of the transaction, and resulting in costly FX rates and fees.

Ripple's cross-border payments solution uses the XRP Ledger (the first major blockchain to become carbon neutral) and its native digital asset XRP (which was purpose-built for payments and doesn't require mining) to provide a fast, low-cost, sustainable solution that's better for businesses, consumers and the environment — with assets tokenized on the XRPL made green from the get-go. Merchants and retailers can eliminate pre-funding of destination accounts, reduce operational costs, and unlock capital — enabling real-time payments and near-instant settlement with fixed FX rates, absent any market volatility or risk to profits. At Ripple, not only are we committed to being carbon net zero by 2030, we are also committed to delivering on our mission of enabling a world without economic borders.

Bringing crypto payments to retail

Digital payments network Flexa is one of the ways businesses can easily integrate crypto payments at point-of-sale terminals without the need for any hardware installation. So far, Flexa integrates with as many as 40,000 merchants, and it is through its applications that retail giants such as Whole Foods and Home Depot can process payments in cryptocurrencies. Whole Foods and Home Depot can receive Bitcoin through Flexa's SPEDN app and only pay 1% transaction fees to the Flexa network, which is a whole lot cheaper compared to traditional channels.

Corporate giants next in line for crypto acceptance

Amazon owns Whole Foods, yet Amazon does not accept cryptocurrency payments. Nonetheless, certain avenues allow a cryptoholder to purchase using crypto on Amazon, one of which through gift cards bought in crypto. However, when it comes to paying directly with digital assets, Amazon CEO Andy Jassy professed that there is no concrete plan yet but flirted with the idea

of listing nonfungible tokens (NFT) on the e-commerce giant's website, similar to what eBay had done in 2021. It is also worth noting that Whole Foods is not the only subsidiary of Amazon that is friendly toward crypto. Live streaming service Twitch has also been accepting cryptocurrencies since 2019.

Another company to likely welcome Bitcoin and altcoins as a payment method is Walmart. The retail giant filed several trademarks in December 2021, revealing its intentions to create its own digital currency with plans to even sell NFTs, according to the U.S. Patent and Trademark Office.³⁵ Finally, Tesla is the company that is more than likely to start accepting Bitcoin — again. The reason why Tesla stopped short the first time was its concerns over miners that use too much fossil fuel-generated electricity. Tesla CEO Elon Musk said that his company is “most likely” to allow Bitcoin payments once more if miners turned greener.³⁶ The good news is that the majority of publicly listed mining companies have put sustainability at the heart of their operations, according to research. Out of the 12 publicly listed companies, eight are already carbon neutral or environmentally beneficial operations.³⁷

³⁵ See “Walmart is quietly preparing to enter the metaverse”, Lauren Thomas, CNBC, January 16, 2022

³⁶ See “Elon Musk says Tesla will ‘most likely’ accept bitcoin again when it becomes more eco-friendly”, Aria Alamalhodaie, Lucas Matney, TechCrunch, July 22, 2021

³⁷ Learn more about the state of publicly-listed crypto-mining firms in Q1 2022 [here](#)



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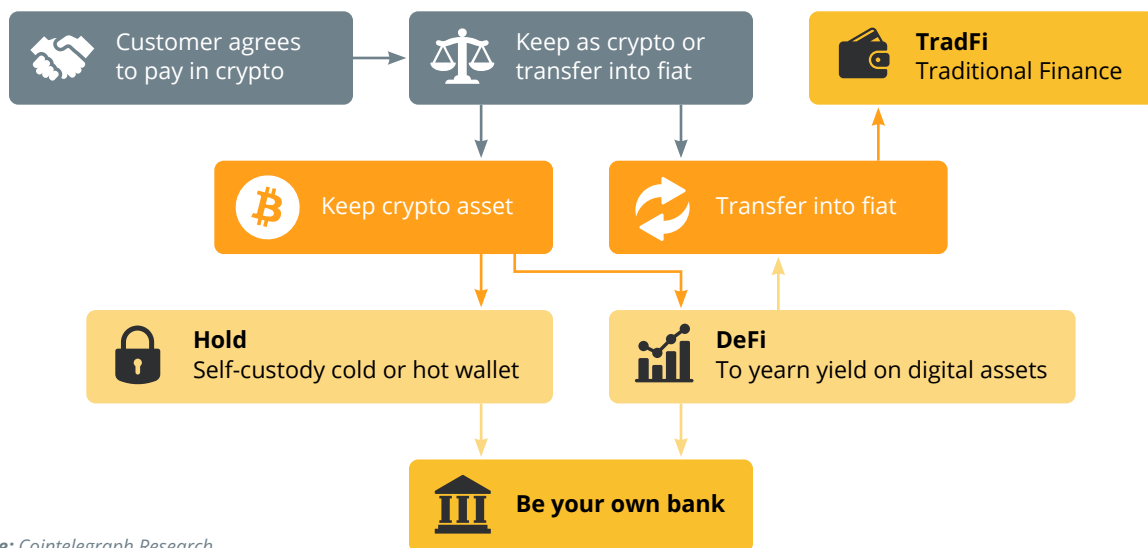


2 Cryptocurrency Payment Channels

2.1 How can a business accept cryptocurrency payments?

As a business, it makes sense to be able to accept as many forms of payments from consumers as possible. This opens up your potential client base and provides ways to help the bottom line of the business by decreasing transaction costs and settlement times caused by intermediaries. This is where peer-to-peer payments come into play and combine the best parts

of cash with the best parts of a checking account found in traditional finance (TradFi). At a high level, this flowchart can help to demonstrate some of the ways a business can accept crypto as payments and some of the implications of each decision. Each section is talked about further in-depth in later sections of the report.



Source: Cointelegraph Research

Bitcoin accepted here

The first scenario is when a business accepts payments in crypto directly from a customer. This entails a type of point-of-sale (POS) system that will be needed to easily facilitate transactions. Easily scannable screens with a quick response (QR) code can help make the process go smoother, as having to copy long and complex crypto addresses will become cumbersome and disincentivize this payment channel. Customers in a face-to-face interaction can scan this screen with a phone to identify the address where the funds should go to, the amount, and then sign for the transaction. This transaction happens like a credit card transaction except that the fees are paid by the person who initiated the transaction — not the business. This eliminates racking up any fees from credit card companies of 2.5%–3% per transaction, helping to grow the margins of the business. Also, once the transaction is complete, the funds immediately become the firm's to utilize as needed — i.e., no waiting weeks to settle and receive funds from the likes of credit card companies and other intermediaries.

Depending on the availability of different centralized exchanges (CEX) in the country a firm finds itself in, the centralized exchange can be utilized for the function of accepting crypto payments. Because the funds for both the recipient and the potential accepting business are on the same exchange, there is no network fee that is incurred when the asset is sent from one party to another. Also, the change is next to instantaneous. In many cases, all someone needs on the same exchange is the email of the person they are sending the crypto to, and it can be sent easily. This functionality is not true for all CEXs equally. Some do not allow sending crypto to other users on the same exchange, while others encourage it. It is important to check the functionality of each CEX before setting up payments in this way. At the same time merchants should be aware that CEXes have custody over their digital assets, meaning that merchants are at risk of losing their funds in case a centralized exchange gets hacked.

Imagine being a real estate agent who puts an offer on a house on a Friday evening. The buyers they represent are excited to finally own their dream house. Because the bank is closed, everyone has to wait until Monday when the bank opens to verify whether the funds exist and perhaps to start transferring funds and the entire

process. When Monday comes, the real estate agent calls the bank to find out someone already purchased the house. They used crypto to pay for the house, and the bill of sale went through over the weekend. That is a game changer for many different industries. "Crypto does not sleep," as they say, and it can be a powerful tool specifically for sales that often require bank wire transfers, verification of funds, and other functions TradFi offered, which blockchain technology has rendered obsolete.

Businesses can also use payment options that allow the customer to pay with crypto and turn it into the fiat currency of choice to be deposited into the businesses' accounts. This step enables a payment option but does not entangle the business with the need to deal with wallets, holding, and the many responsibilities of being in direct control of funds.

If the decision is made to just turn a crypto payment into fiat right from the start, TradFi options such as depositing the funds into the bank or utilizing those funds for business expenses can go on as they have in the past. However, if the funds are to remain in crypto, there are several new options available.

To hodl or not to hodl

The decisions to hodl (hold on for dear life) is not as straightforward as it may seem for individual investors when it comes to cryptocurrencies like Bitcoin. A firm has a balance sheet with assets and liabilities, and the capital expenses (CapEx) need to be paid to keep the firm operational.

Hodling or not does not have to be an all-or-nothing proposition. It may behoove a firm to keep some blue-chip cryptocurrencies on the balance sheet for long-term price appreciation or a rainy-day fund situation. This can be done by keeping crypto assets on exchanges, employing a custodial service, or storing the funds privately with a hot or cold wallet. Each one of these options is detailed later in this report. It should be noted that keeping crypto assets on exchanges may be the most liquid but also has a bit of risk if the proper risk-reduction steps are not taken. If this option is chosen, use a trusted and reputable exchange, set up two-factor authentication (2FA) that requires a code not just a message sent to a cell phone, and pick an exchange with great reviews in the customer service

department in case there are issues. Storing your funds with a custodial service may be easier, but there is a saying in the blockchain industry, “not your keys, not your crypto.” This may be helpful to ease the mind of people managing the firm’s assets but cuts down on both liquidity and potential uses for the crypto. Hodling crypto in a hot (connected to a device on the internet) or cold (not connected to the internet) wallet can take some getting used to, but this method gives the firm complete control over the funds in the account.

Decentralized finance (DeFi)

If to assume that not all crypto will be used for hodling, there are ways to take the newly acquired crypto and earn a yield, which would be much higher than utilizing TradFi avenues such as interest-earning bank accounts or certificate of deposits. Staking or lending can be done on many centralized exchanges (CEX) and decentralized exchanges (DEX), which can earn annual percentage yields (APY). Depending on the situation, this APY can be “in kind,” meaning more of the same asset is earned over time, or it could earn fiat rewards. Each of these may have tax implications depending on the jurisdiction the firm is operating out of, so this should be taken into account. Also, staking has less inherent risks than lending, so while earning fiat yield may be more attractive due to less potential value fluctuations, this should be kept in mind. Staking simply helps to secure the blockchain network. DeFi can unlock a great earning potential for a firm, while it is not utilizing the funds for the operation of its business.³⁸ Companies that are willing to take full advantage of DeFi and earn reward on funds used for operations should consider using 7StarPay. This platform offers rewards on every transaction sent and never holds user’s custody, meaning that users are always in full control of their digital assets.

Time to pay the bills

There may come a time when crypto needs to be taken out of cold storage or out of DeFi protocols and turned

into fiat in order to operate a firm’s day-to-day CapEx. Having a CEX bank account with the ability to transfer funds to a bank account could be the easiest manner. Transfer the funds to the CEX, sell the crypto asset for fiat on the exchange, and transfer the funds to the TradFi bank account. Remember that these actions can constitute a taxable event depending on your jurisdiction, including capital gains taxes or potential tax loss harvesting.

A firm’s assets left in crypto can also be useful to facilitate cross-border payments to vendors that are not in the same geographical location or may also want to transact in crypto for their own reasons. Depending on the value of the digital asset when purchased and when it is used, this can also result in a taxable event (depending on the location of the business it operates in).

Things to consider before turning all crypto assets into fiat

Nothing in this report is financial advice; it is only a collection of ideas and concepts to answer initial questions and walk through the process of taking crypto as payment for goods and services. The adoption of crypto over time seems to be a trend across all sectors of the global economy, and it is this adoption trend that should be thought of before simply cashing out all of the hard-earned crypto for fiat. Besides the potential for blue chip assets to appreciate over time, these assets (specifically when held in noncustodial wallets) are accessible 24 hours a day, seven days a week. Only those who know the private keys can control the crypto assets, and in times of political upheaval, financial uncertainty, or a host of other circumstances, it may be advantageous to “be your own bank” and in control of your own assets.

³⁸ To learn more about DeFi, see this report by Cointelegraph Research [here](#)

Several ways businesses can accept cryptocurrency payments

According to a survey conducted by Worldpay from FIS and Crypto.com in late 2021, only 4% of merchants that participated in the research accepted cryptocurrency payments, whereas approximately 75% of Crypto.com clients expressed their interest in purchasing goods or services with cryptocurrency.³⁹ Furthermore, about 60% of merchants that took part in the survey were interested in implementing crypto transactions within

one year, making the need for cryptocurrency payments implementation very apparent.

In general, businesses that are willing to start accepting crypto have two ways of doing so:

- Set up a peer-to-peer (P2P) interface



Create a crypto wallet



Present a QR code of the wallet where customers are willing to pay in crypto



Transactions will take from several seconds to hours to get completed depending on the cryptocurrency

Although simple and inexpensive to implement, the way of transacting crypto directly from a buyer to a merchant has several disadvantages:

- The buyer is required to transact crypto manually from their wallet, which requires additional effort and time.
- The risk of crypto volatility and security becomes more prominent as funds are stored in digital currency in the merchant's account.
- Tracking individual transactions and linking a payment to a customer gets more complicated as the number of crypto transactions increases.
- Clients may perceive the P2P payment method with suspicion.
- Employ a cryptocurrency payment processor

From a merchant's perspective, working with a cryptocurrency gateway is not much different from working with a traditional payments gateway

since both accept a payment from a consumer and transfer it to the merchant's account. Crypto processors, however, execute an additional step to convert crypto to fiat prior to sending funds to the merchant's bank account or, on the contrary, converting fiat received from clients to crypto and depositing it in the merchant's wallet.

Thanks to crypto payments providers, businesses can accept a wide range of digital assets without worrying about volatility of their prices and ways of storing them. On the other hand, employing a crypto payments processor entails a counterparty risk since a company providing such services may fall a victim to a cyberattack or fail to successfully perform its duties. Additionally, crypto gateways charge fees for their services, but they are comparable to those levied by traditional payments processors and rarely exceed 1% as per figure 5, which contains a comparison of the most established crypto payments processors.

³⁹ See "CRYPTO FOR PAYMENTS: Consumers are hungry – will merchants be able to fill their appetite?" Crypto.com, February 2022

About ForumPay

We are a **crypto payment gateway** that enables crypto to fiat payments **for any type of business** risk free.

We appreciate that consumers as well as businesses of all types from bricks and mortar and ecommerce retailers to gaming operators, financial institutions, automobile, real estate, yacht and private jet charter sales need simple, risk free, transparent, fast, compliant and secure payments. And this is exactly what ForumPay offers today:



Simple

Pay with any crypto from any wallet by scanning a QR code

Any of the 300 million and rapidly growing number of crypto wallet holders around the world can make a payment to any type of business with their preferred wallet and crypto by simply scanning a QR code at a ForumPay enabled business in store or online. Our technology is available easily and everywhere [LIST POSSIBLE PAYMENT TYPES — API, PARTNERS, APP, POS etc.]



Risk Free

Businesses can accept crypto payments and receive their exact price amount in fiat

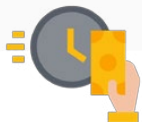
As we also own and operate our own exchange, we can provide the consumer with the best available conversion rate in real time. Once the payment is initiated we instantly convert the crypto to fiat shielding the business from any crypto volatility risk. For Gaming Operators and Financial Institutions the player or trader simply determines the value of their deposit in fiat and this is the amount they receive in their account.



Secure

Compliant and secure ensuring no fraudulent chargebacks nor PCI-DSS compliance costs

We provide an unmatched level of compliance and security for all our crypto payments with every transaction being monitored by our 'best in class' partners — Chainalysis and Jumio — and blockchain technology means that we do not experience the same drawbacks as cards.



Fast

Our next generation payments technology provides instant confirmations with a payment guarantee with transaction speeds that are faster than cards. We settle automatically to the businesses chosen bank account in their preferred fiat currency on the next business day, with no costly manual intervention required.



Transparent

The conversion rate is visible to the consumer and merchant in real time throughout every stage of the transaction.

Simple payouts & refunds with no risk of volatility



Merchant defines total stable coin amount to be set aside for making payouts/refunds



Payout/refund balance is topped off at settlement



Merchant issues payouts/refunds individually or in batches to minimise transaction fees

Figure 7 Comparison of Cryptocurrency Payments Gateways

					
	Alchemy Pay	PayPal	BitPay	Coinbase Commerce	7StarPay
Digital assets available	85	4	12	3 or 7 depending on the plan	76 tokens (Cross 10 blockchains), others available on demand
Number of countries and territories supported	190	U.S. (excluding Hawaii) and U.S. territories	229	41	U.S., Canada, Southeast Asia, Eastern Asia, Europe
Transaction fees	1%	From 1.4% depending on the payment method	1%	1%	\$0.002 per tx
Invoice	No	No	Yes	Yes	No
Proprietary token	ACH		–	–	Supports all Fiats' Stable Tokens

				
	Circle	Coin Payments	TripleA	ForumPay
Digital assets available	USDC (on 8 blockchains)	2300+	Bitcoin, Bitcoin Lightning, USDT (ERC-20 and TRC-20), USDC, Ether and Binance Pay	8 base cryptocurrencies + support for enabling any cryptocurrency based on demand
Number of countries and territories supported	215 (for card payments)	150+, unavailable in NY	200+	All countries apart from the OFAC sanctioned
Transaction fees	\$1,000 per month	From 0.5% depending on the cryptocurrency	0.8% processing fee	Starting from 0.5%
Invoice	Yes	Yes	Yes	Yes
Proprietary token	USDC	–	TripleA offers support for the major cryptocurrencies and stablecoins instead of a proprietary token	Yes — Issuance for merchants

Source: Alchemy Pay, BitPay, Circle, Commerce.Coinbase, CoinPayments, PayPal

The crypto payments processors listed above also have fundamentally different approaches when it comes to how they handle payments to merchants. PayPal, for example, instantly converts cryptocurrency into fiat and sends it to the merchant's account so the merchant does not have to deal with crypto at all. Circle, on the other hand, is oriented toward businesses that settle payments in crypto since all transactions made using cards, bank account transfers, etc. are transferred to the merchant's account in the USDC stablecoin, the native token of Circle's ecosystem that is pegged to \$1.

Although stablecoins (coins with a 1:1 peg to fiat) seem attractive for payments processing thanks to their price stability, they lose to Bitcoin when it comes to use by merchants. This trend, however, has started to reverse, and the use of Bitcoin at merchants using BitPay plunged from 92% in 2020 to about 65% the following year, with stablecoins and Ether accounting for 15% and 13% of transactions, respectively.⁴⁰

⁴⁰ See "Bitcoin's Dominance of Crypto Payments Is Starting to Erode", Olga Kharif, Time, January 16, 2022

Centralized and decentralized exchanges

Centralized exchanges (CEX), in combination with a wallet, can be used as an alternative for payment gateways. A multi-chain wallet such as MetaMask allows accepting payments in various cryptocurrencies while not paying fees to the payment gateway.

Following the wallet set-up, a merchant receives a unique public key and an associated QR code that can be sent or shown to the client to transfer funds. The funds can then be stored in this wallet or transferred to a cold wallet for long-term storage, such as Ledger or Trezor. Moreover, if the client prefers to pay in a volatile asset, multi-chain wallets can be used to swap the funds into stablecoins instantaneously. Please note that accepting payments in volatile assets is highly unrecommended due to fees associated with swapping an asset to the stablecoin and potential losses due to price fluctuations.

Then, a merchant can send the money to a centralized exchange wallet such as Binance or Kraken. Importantly, the majority of CEXs offer business support and can offer plans tailored for your business needs. Importantly, the set-up of the exchange account is intuitive and can be done easily via a phone, tablet application or browser. However, it should be noted that the CEXs will require you to undergo a Know Your Customer (KYC) procedure. The exchange can then be used to sell the crypto assets for fiat money. Fiat currency can then be sent to the bank account or credit card. Some of the most popular exchanges are compared below.

Alternatively, a merchant can use a decentralized exchange (DEX) to convert funds from one cryptocurrency to another before storing them in a centralized or decentralized exchange.

Figure 8 Comparison of the Fees on Centralized Exchanges

	Fiat Supported	Deposit Fees for ERC-20 Stablecoins (USDT, USDC)	Withdrawal Fees (USD)	Withdrawal Fees (EUR)	Withdrawal Fees (GBP)
 Binance	46 major currencies	<u>Free</u>	<u>Signet: 0</u> <u>SWIFT: \$15</u>	<u>Visa: Up to 1.0%</u> <u>SEPA disabled</u>	<u>Visa: Up to 1.0%</u>
 Coinbase	USD, EUR, GBP	<u>Free</u>	<u>Wire: \$25</u>	<u>SEPA: 0.15%</u>	<u>SWIFT: 1.0%</u>
 FTX	USD, EUR, GBP, AUD, HKD, SGD, ZAR, CAD, CHF, BRL	<u>Free</u>	<u>\$25</u>	<u>Up to 32 EUR + additional bank fees</u>	<u>Up to 75 GBP + additional bank fees</u>
 Kraken	USD, EUR, GBP, CAD, JPY, CHF, AUD	<u>Free</u>	<u>\$0–\$35, depending on means of transfer</u>	<u>SEPA: 0.09–1 EUR</u> <u>Instant SEPA: 0.90 EUR</u> <u>SWIFT: 5–35 EUR</u>	<u>FPS: 1.95 GBP</u> <u>CHAPS: 21 GBP</u> <u>SWIFT: 13–35 GBP</u>

Source: Cointelegraph Research (Please note that conditions may vary depending on multiple parameters. Always make sure that ERC-20 tokens are sent to an ERC-20 wallet address, and please study the terms and conditions in detail before proceeding with any CEX.)



The world's largest provider of Bitcoin and cryptocurrency payment services.



Our Beginnings

BitPay was founded in 2011, while Bitcoin was still in its infancy. We saw the potential for bitcoin to revolutionize the financial industry, making payments faster, more secure, and less expensive on a global scale.



Our Mission

We are pioneers building blockchain payment technology to transform how businesses and people send, receive, and store money around the world.



Our Future

Cryptocurrency's future looks very bright, and we plan on remaining on the forefront of this technology, creating more tools and services for everyone to use in innovative new ways.

We accept crypto payments **globally**:

1

No Risk

Never touch crypto, no fraud chargebacks with zero price volatility

2

Any Wallet

We support all crypto wallets, 100+ and growing

3

Top Coins

12+ coins including Lightning Network payments

4

Just 1%

No setup fees and no monthly minimums

5

Global

Access 229 countries & territories instantly

6

Fast Settlement

Directly to your bank account next business day

Trusted by **thousands** of businesses and **millions** of crypto enthusiasts worldwide.



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Request crypto payments via email



BitPay Checkout

Accept crypto payments online



BitPay Send

Send crypto payments to anyone

We support



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Treasury diversification

Within the running of any successful long-term business is the strategic action of mitigating risk. In the world of TradFi, the chief financial officer or treasurer would

be in charge of this risk management activity. Having the correct balance of assets and liabilities position companies for greater growth and expansion potential.

“Cash is Trash” — Ray Dalio⁴¹

Domestic currency

The ease of use of a domestic currency for a firm to operate with is obvious. In the United States, the dollar is the easiest and most liquid form in terms of a medium of exchange that can exist — in Europe, the euro; in China, the renminbi; in Mexico, the peso. All of these currencies have one thing in common: They are in a state of consistent inflation of supply. When a medium of exchange is in a constant state of inflation of supply, this leads to great price inflation of goods and services.⁴² This poses a challenge for individuals and firms who would like to save for a period of time, as this inflation can erode away some of the purchasing power earned with every unit of the domestic currency taken in as revenue.

One of the solutions is the TradFi way of putting money into an interest-bearing account with a bank. The hope is that interest rates set by the bank outpace the inflationary rate of the currency year-over-year. However, this has rarely been the case in the late parts of the 1900s and early 21st century, causing riskier actions to be taken by individuals and firms to hold, at the very least, onto the purchasing power of these holdings.

Part of this diversification is to borrow funds, as the interest rate over time may be less than the revenue earned from putting that money to work, allowing the firm to earn the margin. Another avenue may be to own another type of asset, like equity in a publicly traded company or real estate, in a way to outpace inflationary pressures. All of these are not bad concepts if given the correct circumstances. But they all rely on an intermediary. Each of these actions still requires a broker, a bank, a permissioned system, with each one waiting with a hand out to take valuable margin away from the process. Enter a newer strategy: DeFi.

DeFi

While this section is titled “DeFi,” it actually encompasses strategies that may include CEXs, decentralized exchanges (DEX), and owning alternative asset classes than TradFi would have been able to allow in the past. These alternatives include holding digital assets such as Bitcoin on a company's balance sheet. This is still a new practice, and accounting standards in different countries like the generally accepted accounting principles (GAAP) are still in the process of incorporating these assets.⁴³

When a firm takes in Bitcoin or other digital assets, it can hold these assets on the firm's balance sheet. These assets may depreciate or appreciate in terms of the domestic currency price in which the company operates. If the company holds on to the asset until it appreciates in price higher than when it was taken in as revenue, the company can sell it on a DEX or CEX and accrue a higher overall return on the initial sale, increasing the overall margin of the company. These assets may also decrease in domestic currency price, and this is where economics or “tokenomics” become important.⁴⁴ Tokenomics is the combination of “token” from crypto and “economics” from the scientific study of how resources are utilized by individuals or organizations. If a digital asset has a hard supply cap, it is likely that as long as demand increases over time, the asset will appreciate in value in terms of commanding a higher domestic currency price. In the case of Bitcoin, there will only ever be 21 million BTC in existence, giving it a unique classification of being the hardest money on earth. While it may have domestic currency price fluctuations in the short term, it is likely over time that it increases in value. And the liquid nature of crypto markets (open 24 hours a day, seven days a week, 365 days a year) make it easy to retrieve funds should the need arise in the running of the business.

⁴¹ Ray Dalio says, “Cash is Trash” and makes the Case for Crypto [here](#)

⁴² To find out more about the difference between monetary inflation and price inflation, follow this link to Chapter 10 of Dr. Murphy's book, [Understanding Money Mechanics](#)

⁴³ For a brief introduction to GAAP follow this link [here](#)

⁴⁴ Tokenomics is broken down into a bit more detail in this article [here](#)

While holding the underlying asset can be a risk mitigation strategy against the volatility of holding cash, smart contract assets, such as Ether, Solana ([SOL](#)), Fast Access Blockchain (FAB), Algorand ([ALGO](#)) and several others, can allow the owner to participate in lending, borrowing, staking and other DeFi tools while holding a potentially price-appreciating asset. Some of these activities, like staking, have much less risk associated with them, while lending can be riskier depending on the platform and potential collateralization required by the party taking the loan.

By researching and examining the different DeFi instruments at the crypto holder's disposal, it can bring a strategy of diversification and mitigation of risk.⁴⁵ It has always been a staple in financial education that a firm's assets should not be wholly made up of one class or type in the event that that one asset class suffers some price corrections or, in the case of domestic currency, becomes inflated at increasing faster rates than previously anticipated.

2.4 On-ramps and off-ramps

Although centralized exchanges provide a way to exchange crypto into fiat and vice versa, they fail to allow the customers adhering to fiat to pay with digital assets. On-ramps offer a convenient way for customers to buy crypto with fiat without leaving the merchant's website. While 'on-ramping' fees have gone down, on-ramp aggregation ensures merchant's the lowest fee on-ramp is used by users, while increasing transaction success-rates. This can usually be done with a credit or debit card or a bank transfer. On the contrary, off-

ramps easily convert crypto into fiat. For instance, the merchant can instantaneously convert cryptocurrency paid into fiat and deposit it in their bank account.

These services are now provided by multiple companies and usually come in a single solution. The integration process is similar to Stripe or any other conventional payment gateway. Figure 8 compares some of the most popular ramps, including transaction and subscription fees, as well as means of payment and currencies supported:

Figure 9 Comparison of Popular On-ramps and Off-ramps

Source: [Gilded Finance](#), [Cointelegraph Research](#)

	Jurisdiction	# of Supported Tokens	Fiat Supported	Transfer Methods	Limits	Fees
Ramp Network	U.K.	45+	USD, EUR, GBP	Visa, Mastercard, Apple Pay, Open Banking, Bank Transfer	10,000 euros	0–2.5%
Transak	U.K.	114	35+	Apple Pay, Google Pay, Visa, Mastercard, SEPA, Faster Payments, UPI, MobiKwik	€18–\$100,000	0.99–5.5%
MoonPay	Malta	40+	40+	Visa, Mastercard, Apple Pay, Google Pay, Samsung Pay, SEPA, Faster Payments, Wire Transfers, Open Banking, ACH	150–20,000 euros	4.5%, or \$4.99
Simplex	EU	130+	115+	Apple Pay, Visa, Mastercard, SWIFT, SEPA	\$20,000 per day or \$50,000 per month	0.1–5%
Wyre	U.S.	39	30	ACH, Cards, Wire	\$2,500–\$150,000	0.2–0.75%

⁴⁵ Background and information on DeFi can be found [here](#)

Although these services are now largely deployed by DeFi protocols, they can potentially serve as one of the most convenient gateways to crypto for both customers

and users, significantly simplifying the process of purchasing and selling digital assets to fiat for both parties.



What is an on-ramp?

The world of crypto can sometimes feel very exclusive, reserved for the enthusiasts but as more real world blockchain applications are delivered, we can see this potential to completely reimagine the world as we know it to build one which is truly inclusive, in which we own and control our data.

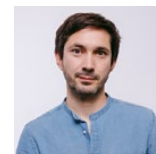
On-ramps like Ramp are about making it easier for people to be a part of that world by reducing friction to purchase and sell crypto. Ramp is a key piece of infrastructure for opening up the digital assets world to new audiences, enabling users to buy digital assets directly in our partners' apps in a convenient and reliable way.

What does this future of crypto payments look like for merchants?

As the token based economy grows, merchants will need to consider how they structure their payment options. More than that, merchants will be presented with an opportunity to build loyalty and communities through the innovative use of tokens. One example might be a loyalty program or NFTs issued to loyal customers.

What role does Ramp play in the crypto economy?

In an always on, digital economy, we've become used to ultra-fast ecommerce experiences. But purchasing cryptocurrencies remains complex and confusing. Ramp brings delightful experiences to end users with a fiat to crypto payments infrastructure that's trustworthy, compliant and fast. Partners can integrate Ramp in minutes so their end users never even need to leave their applications to buy and sell crypto.



Greg McEwan,
Head of Marketing
at [Ramp](#)



What's the biggest problem facing fiat-to-crypto on-ramps?

Many transactions to buy crypto are sadly unsuccessful. In fact, over 50% of credit card transactions to buy crypto are declined. This has a huge impact on the bottom-line of crypto-platforms, as it directly affects onboarding-success.

How can this problem be solved?

Various on-ramps try to improve on the situation by adding more transaction processors to improve transaction authorization rates. However, this has not solved the problem, and a smarter approach is required.

How does Onramper solve the problem?

Onramper, as a fiat on-ramp aggregator, detects which on-ramps are best for which countries and currency pairs. Based on past data, Onramper can, for each user, recommend the on-ramp that is most likely to result in a successful transaction. Using this approach, successful onboarding can be increased by 30-60% compared to individual fiat on-ramps.



Thijs Maas,
Founder and CEO
of [Onramper](#)

Onramper: the Future of Fiat-Onramps

Key Insights

- Over 50% of fiat-to-crypto on-ramp transactions fail
- Fiat on-ramps perform differently based on geography, payment method, trading pairs, and more
- Onramper, a fiat on-ramp aggregator, improves successful transaction rates by 30-80% by intelligently recommending the right on-ramp for individual users

The problem with Fiat On-ramps

Fiat on-ramps are crucial to the crypto-space. The APIs and widgets provided by fiat on-ramps can be integrated by crypto-platforms so users can easily buy cryptocurrencies with (e.g.) credit cards. This is crucial for user-onboarding. However, individual fiat on-ramps have limited geographic reach, limited conversion pairs, and differ in fees a lot. But the biggest problem is that **most credit card transactions simply fail**.

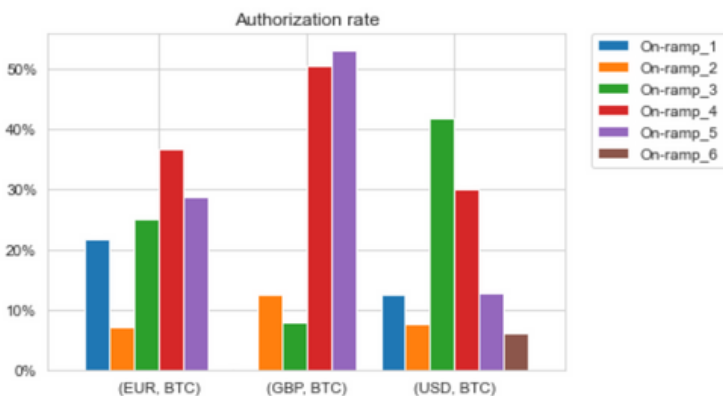


Figure / over 50% of transactions fail on average

These failed transactions have a huge impact on the onboarding of crypto-platforms. As illustrated, the success-rate of fiat on-ramps varies per country and trading pair.

The solution: Onramper

The above means that, ideally, crypto-platforms want to pick the right on-ramp for the user based on how well the on-ramp can service users. This requires the integration of many on-ramps, and constant optimization, as on-ramp performance is dependent on a wide range of factors, and changes over time.

This is where Onramper comes in. Onramper aggregates all major fiat on-ramps in a API and widget, and then offers it to crypto-platforms. This has many advantages over traditional fiat on-ramps, as a single integration now gives access to all the possible supported fiat currencies, payment methods, and cryptocurrencies of Onramper's 8+ fiat on-ramp partners. But most importantly, **Onramper's intelligent transaction routing can predict which on-ramp is most likely to result in a successfully completed transaction for a user**.

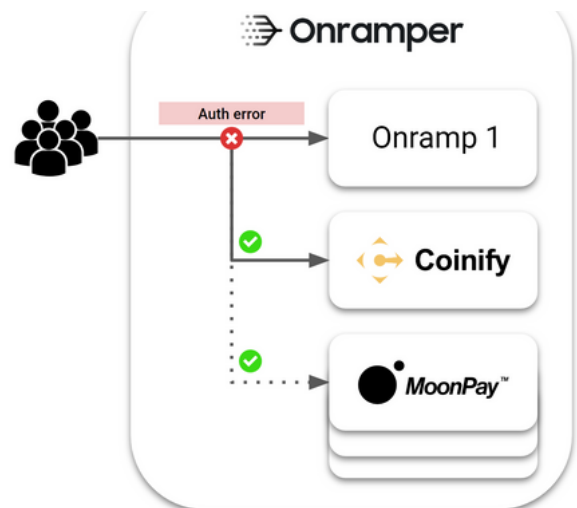


Figure / visualization of Onramper's smart tx routing

“*With our smart onramp-recommendation, our clients increase successful on-ramping by 30-80%.*”

- Thijs Maas, Founder & CEO of Onramper

Hardware point-of-sale systems

Hardware point-of-sale (POS) systems are used by companies in order to establish a more efficient customer experience. This includes improving ordering processes, saving both the customer and employee time, providing better security, and enhancing the services the customer receives.⁴⁶ Today, there are several hardware POS systems that facilitate cryptocurrency transactions. These include Worldline and Ingenico, Cyclebit, and Elly POS.

Worldline and Ingenico, joining the Worldline brand in 2020,⁴⁷ are hardware payments processing systems that support a wide variety of industries involving manufacturing, financial institutions, retailers and merchants, transportation, and the public sector, to name a few.⁴⁸ In September 2021, Worldline announced the launch of a new payments infrastructure powered by Bitcoin Suisse, named WL Crypto Payments.⁴⁹ This announcement means now over 85,000 Swiss merchants are able to accept cryptocurrencies.

WL Crypto Payments allows customers to pay using ETH or BTC from their “usual” mobile wallet applications.⁵⁰ When the customer pays using cryptocurrency, the WL Crypto Payments application immediately converts the

Ether or Bitcoin into Swiss francs. This prevents the merchant from being impacted by the price volatility that can come with cryptocurrencies.

Cyclebit is a hardware POS system made with cryptocurrencies in mind, although it does currently accept Google Pay, Apple Pay and Samsung Pay. Primarily operating in Europe, Canada and Vietnam, merchants are able to use the Cycle POS 5 to accept and sell cryptocurrencies. The Cycle POS 5 offers a 2D scanner, built-in receipt printer, and the capability to accept contactless payments. As of 2020, Cyclebit's system has been in use by nearly 200,000 merchants in the Commonwealth of Independent States and Southeast Asia.⁵²

Elly POS supports more than 50 cryptocurrencies. Its payments network, known as GoCrypto, converts the cryptocurrency payments from customers into the local currency for the merchant if the merchant would prefer to collect fiat.⁵³ It structured the POS system to be simple to use and states, “No crypto knowledge needed” on its website in order to drive more widespread adoption of accepting crypto payments in the Web 2.0 world.⁵⁴

⁴⁶ Learn more about the advantages of a POS system [here](#)

⁴⁷ More about Ingenico [here](#)

⁴⁸ More about Wordline [here](#)

⁴⁹ See “Worldline and Bitcoin Suisse launch WL Crypto Payments in Switzerland”, Worldline, September 1, 2021

⁵⁰ See “Worldline and Bitcoin Suisse launch WL Crypto Payments in Switzerland”, Joy Dumasia, IBS Intelligence, September 2, 2021

⁵¹ More about Cyclebit [here](#)

⁵² See “Cyclebit Launches E-commerce Payment Service For Accepting Cryptocurrencies Alongside Regular Payment Methods”, Cyclebit, PR Newswire, September 5, 2020

⁵³ More about GoCrypto [here](#)

⁵⁴ More about Elly's digital payments [here](#)

Keeping cryptocurrencies safe

Wallets are used to help store cryptocurrencies from business activities by protecting the business' public and private keys. Customers and organizations alike use a public key, or a cryptographic wallet address, to send payments to the business. The private key is what the business uses to unlock access to the funds in their wallet.⁵⁵ **It's extremely important to emphasize that one, whether it's an individual or a business, should never share their private key with anyone.**

It's always best practice to have multiple wallets for different uses. In the case of businesses, there should be at least two separate ones. A hot wallet for sending and receiving payments from customers and a cold wallet for managing the cash flow gained from the operation.⁵⁶ (See Figure 7)

Figure 10 Cold Wallets vs. Hot Wallets

Cold Wallet ⁵⁷	Hot Wallet
<i>Offline</i> These wallets are physical — not digital. Typically, cold wallets are either paper or hardware wallets.	<i>Connected to the internet</i> Any wallet that is created on a mobile application, exchange, website or desktop and is connected to the internet.
<i>Lack of convenience</i> Cryptocurrencies have to be sent from a hot wallet to a cold wallet in order to store them securely. This process can be tedious and time-consuming for some.	<i>Easy access</i> Because the wallet is connected to the internet, it makes it easier for a user to access their funds and keys.
<i>Secure</i> As a cold wallet is stored offline, it is not at risk of the same attacks a hot wallet might be.	<i>Lack of security</i> As the wallet is connected online, it makes it more vulnerable for attacks and cyber threats.

Source: Cointelegraph Research

Choosing a wallet

As explained in Section 1.2, there are various reasons why a business would consider to adopt cryptocurrency payments into its business operations. Once a business decides to incorporate crypto options for its customers, it must look into which wallet (or wallets) would best benefit the company's goals.

When exploring wallets for a business, there are a few things to consider:

1. Does the company want customers' payments to be converted to fiat?

2. Will the company be using cryptocurrencies for payroll or other business operations?
3. Does the company want to use a custodial or noncustodial wallet?

Does the company want customers' payments to be converted into fiat?

There are some providers that can automatically convert crypto payments into a local fiat currency as the customer is paying for their good or service. This can simplify the learning curve associated with crypto taxes;

⁵⁵ Learn more about public and private keys [here](#)

⁵⁶ Learn more about the best crypto wallets for businesses [here](#)

⁵⁷ See "Hot Wallets vs Cold Wallets: What's the Difference?", Alex Lielacher, CoinMarketCap, November 18, 2020

however, a business may want to hold crypto to take advantage of other benefits.

Keeping customer payments in crypto rather than exchanging it for fiat allows real-time reporting of transactions, meaning accurate revenue sharing and transparent reconciliation of funds. According to a recent Deloitte study, around 40% of customers who pay with crypto are new customers to the company and tend to purchase a higher dollar amount of goods or services.⁵⁸

One major risk to contemplate is the volatility of cryptocurrencies. If a company continues to accept and keep payments in crypto rather than converting it to fiat, the profits can gain or lose value spontaneously.

Will the company be using cryptocurrencies for payroll or other business operations?

Some entities will choose to only accept crypto payments, and others will want to explore other advantages crypto can offer a company. Crypto can be used for payroll, to authorize access to liquidity pools, to enable transactions with stakeholders, and to utilize additional investment opportunities. Blockchain, the technology behind cryptocurrencies, can be used for business in the case of supply chain management, record management, real estate transactions, and non-invasive marketing strategies, to name a few.⁵⁹

If a company chooses to apply crypto to payroll processes, it must consider how to proactively record all data associated with the salary payments since crypto doesn't generate conventional bank statements. It should also be aware that tax authorities do not accept crypto as tax payment, so the company needs to exchange the crypto for fiat before submitting the taxes.

Although, companies do have access to liquidity pools where they can borrow or loan out funds that can help to financially support the goals within the business. There is also the possibility to invest crypto into different projects or initiatives in order to receive additional income.

Does the company want to use a custodial or noncustodial wallet?

A business must decide whether it wants to accept payments with custodial or noncustodial wallets. In the case of custodial wallets, a centralized entity has control over your private keys. For noncustodial wallets, the individual or business controls their private keys, which can be risky if they lose their private keys. Noncustodial wallets are recommended for businesses because they can facilitate large transactions at once, meaning it's important that they own their private keys and have complete access to their wallet.

2.6.2

Crypto cards payments

There are traditional finance companies that have already began to partner with cryptocurrency companies and exchanges in order to deliver crypto debit and credit cards (See Figure 8). A business can choose to use a crypto card for their own transactions and should be prepare to accept crypto cards from

customers. By offering crypto cards, companies position themselves to the potential of touching a wider demographic of customers. This creates inclusion for both Web 2.0 and Web 3.0 customers.

⁵⁸ See "The rise of using cryptocurrency in business" Deloitte, April 25, 2021

⁵⁹ See "The growing list of applications and use cases of blockchain technology in business and life", Insider Intelligence," April 15, 2022

Figure 11 Crypto Companies That Offer Physical Payment Cards

Company Name	Card Issuer	Type	Supported Coins	Fees	Rewards	Available Locations
BlockFi	Visa	Credit	BTC	14.99% – 24.99% APR	1.5% back on every purchase, 2% after \$50,000 annual spend ⁶⁰	U.S.
Gemini	Mastercard	Credit	60+ cryptocurrencies	13.24% – 24.24% APR	3% back on dining, 2% back on groceries, and 1% back on other purchases ⁶¹	U.S.
Crypto.com	Visa	Debit	250+ cryptocurrencies	No monthly or annual fees ⁶²	Up to 8% back, potential for reimbursement of Netflix, Prime and Spotify services	40+ countries
Coinbase	Visa	Debit	100+ (rotating rewards) ⁶³	No transaction, monthly, or annual fees	4% back on all purchases ⁶⁴	30+ countries, rewards only available in the U.S. (excluding Hawaii)
Nexo	Mastercard	Credit	38 ⁶⁵	0% – 13.9% APR	2% back on all purchases, allows users to spend value of crypto without selling it	European Economic Area
BitPay	Visa	Debit	BTC, ETH, BCH, DOGE, SHIB, LTC, XRP, and 6 stablecoins ⁶⁶	ATM and conversion rate fees apply	Doesn't require staking, meaning no rewards available, which can make it more accessible for users. Ability to support hardware wallets	U.S. ⁶⁷
Binance	Visa	Debit	BNB, BUSD, USDT, BTC, XRP, ETH, EUR, ADA, DOT, LAZIO, PORTO, SANTOS ⁶⁸	No annual fees, issuance, or sign-up fees	Up to 8% back on all purchases	30+ countries

Source: Cointelegraph Research

⁶⁰ Learn more about BlockFi's rewards [here](#)

⁶¹ Learn more about Gemini's credit card [here](#)

⁶² See "Crypto.com 2021 Highlights: The Year Crypto Went Mainstream", Crypto.com, January 14, 2022

⁶³ See "Meet the refreshed Coinbase Card", Muneeb Imtiaz, Coinbase, April 7, 2022

⁶⁴ More about Coinbase card [here](#)

⁶⁵ More about Nexo's supported crypto assets [here](#)

⁶⁶ More about BitPay's supported crypto assets [here](#)

⁶⁷ BitPay's available [locations](#)

⁶⁸ More about Binance debit card's supported assets [here](#)



7StarPay is a novel mobile payment app built to make in-store purchases using cryptocurrencies and send lightning-fast cryptocurrency remittances at low fees across the globe. 7StarPay features a **Crypto Reward Model** that allows users to build passive income by receiving free tokens on every transaction sent.

The 7StarPay app is free to download and use on both Android and iOS systems and currently supports not only FAB coin, the native coin of the Fast Access Blockchain that powers 7StarPay, but also Bitcoin, Ether, USDT, USDC, along with other cryptocurrencies.

7StarPay Benefits Merchants by

Attracting tech-savvy customers willing to pay in crypto

Processing transactions within under 2 seconds

Cutting transaction fees down to just \$0.002 per transaction

Offering rewards and bonuses in crypto for bringing new member to 7Starpay



7StarPay Attracts Customers by

Carrying out inexpensive crypto transactions worldwide

Unlimited location to take your digital assets

Providing high levels of privacy and security for both online and in-store transactions

Paying out rewards and bonuses for transactions made with the platform



Contact us to find out more:



Regulations and Licensing Requirements

Merchant side

Currently, there is no need for merchants to obtain any license to accept crypto payments. The thing is that accepting crypto as a payment is similar to holding stocks and then selling them to convert them back to fiat, so there is no need for special licensing and regulation.

However, it can be applied if a merchant decides to make a payments gateway and crypto-to-fiat conversion. Therefore, it is more convenient for merchants to choose the third-party payments processor that holds necessary licenses and helps merchants to handle the rates volatility, technical implementation and interface setup. If the merchant wants to set up a crypto payment decision, they would need to take all these points into consideration and decide how to tackle possible issues. What's more, payments processors offer businesses an immediate conversion to fiat so that a merchant does not need to deal with crypto volatility at all. The rate is frozen at the moment of operation, and merchants receive the dollar equivalent immediately.⁶⁹ However, merchants still need to focus on some nuances: how to integrate crypto payments, how to train staff to work with crypto, how to handle refunds, etc. Another important moment is that crypto transactions and wallets are not insured, and in case a merchant loses their money, they will have nowhere to go.⁷⁰ Some of the payments processors, however, have pools of money to insure merchants' funds.

Payments processor side

If a payments processor operates only in crypto, then the licensing regime can be not applicable. However, payments processors need to be licensed to convert money from crypto to fiat and vice versa. For

example, in the European Union, it should obtain an e-money license or a PI — license to act as a payments processor.⁷¹ An e-money license is preferable for the payments operators, as it also allows the company to offer storage services as well as issue e-money, payment cards and IBAN accounts.

In general, payments processors need to be licensed as a digital payment organization to work with currency conversation, provide custodial services and track transactions from customers. As an example, Singapore-based processors are likely to obtain Digital Payment Token License issued by the Monetary Authority of Singapore.⁷² In the U.S., payments processors must be registered as a money service business per Financial Crimes Enforcement Network (FinCEN) requirements. Payments processor also must be registered as a money transmitter and get respective license as it falls under the "someone that acts as an intermediary between two parties that send or exchange money for another currency" definition of FinCEN.⁷³

Tax obligations for merchants

Cryptocurrencies are mostly considered as property like stocks, bonds, real estate and not as a currency, so taxes are applied in a different way than with fiat money. If a merchant receives crypto and keeps it in their wallet, they have to record its established value in fiat money due to the exchange rate at the moment of sale. Consequently, as the crypto remains in the wallet and not converted into fiat, it is considered an investment. Then, after the merchant actually sells this crypto to get fiat money, the gain or loss in value is calculated. And taxes in this case are calculated as a capital gain or loss of value in fiat money at the moment

⁶⁹ See "Accepting Bitcoin at Your Business: Pros, Cons and How to Get Started", Kurt Woock, NerdWallet, November 18, 2021

⁷⁰ See "Accepting Payment in Bitcoin: Considerations for Merchants", Cherly Aaron, LexMundi, 2019

⁷¹ See "Practical Thoughts on E-money License for Crypto Businesses", Mina Krzysnik, May 13, 2019

⁷² See "TripleA, the First Crypto Payment Company to Be Licenced by MAS", TripleA, November 20, 2021

⁷³ See "MONEY TRANSMITTER LICENSING FOR U.S. CRYPTO COMPANIES", Kelman Law, July 13, 2020

of selling crypto due to U.S. Internal Revenue Service rules.⁷⁴ So, capital gain tax is applied. In that case, for a proper taxation, businesses have to keep track of all the crypto transactions and analyze the market situation to better estimate its balance sheet and calculate taxes.

Another possible option of calculating taxes is to establish crypto value at the moment of payment. In that case, taxes are applied due to the fiat equivalent of crypto received. Therefore, businesses have to track all the transactions and keep detailed records and

documentation to avoid mistreating their incomes. However, it works properly only if the merchant immediately exchanges their crypto balance to fiat money.

Some of the payments processors offer businesses a possibility of momentary crypto-to-fiat conversion, and in that case, businesses immediately receive fiat in their bank accounts and do not deal with crypto custody at all. Thus, ordinary taxation rules are applied as businesses do not deal with crypto directly.

4 Important Questions to Ask When Choosing a Payments Processor

When is the payment converted into fiat?

Merchants would, of course, want to avoid price volatility when accepting cryptocurrency as payments. Suppose merchants start accepting Bitcoin. In this case, they would be vulnerable to the wild price changes of the cryptocurrency, making it problematic for them to account for profit and losses. Immediate conversion to fiat is available to most merchants, which helps mitigate volatility risk. Coinbase and ForumPay, for example, have an auto-conversion feature, which lets merchants automatically convert crypto to fiat before being deposited to the merchant's exchange account. It also accepts USDC as another way to avoid volatility yet has crypto's flexibility.

When is the payment deposited?

Settlement may vary depending on the payments processor. Some payments processors take one

business day to transfer payments to the merchant's bank account, while others may take several business days. The exact duration varies depending on the settlement option selected but follows the regular schedule of bank transfers once a withdrawal has been processed. Some payments processors offer merchants the option to settle in cryptocurrencies, such as the USDC stablecoin, in which case the processing time would not take a day to complete.

How is the spot price determined?

While quick conversion to fiat is a feature offered by payments processors, the exchange rate may vary. Some processors may convert crypto to fiat at real-time market rates or may add a markup to the exchange rate. One processor that doesn't convert to fiat at real-time exchange rates is BitPay. Instead, it sets a slightly different rate from the spot price, which is determined by the open buy orders from the exchanges it works

⁷⁴ See "BITCOIN ACCOUNTING TREATMENT AND TAX CONSIDERATIONS", Micro Strategy, Feb. 3, 2021

with and the volatility of each cryptocurrency. The downside is that the rates would often be a lot higher for BitPay to avoid losses in every transaction. However, doing this enables BitPay to honor the rates for up to 15 minutes, leaving enough time for the customer to make a purchase.

What are the fees?

Typically, the main fees that payment processors charge include conversion fees, withdrawal fees and transaction fees.

Conversion fees: Most crypto payments processors would have the conversion charges baked into their exchange rates like BitPay, while coin payments, on the other hand, a conversion fee along with a network fee are added per transaction.

Withdrawal fees: Withdrawal fees may depend on the withdrawal method and the cryptocurrency. Each cryptocurrency that the payments processor supports will have different fees, as it depends on the network charges. When withdrawing to a bank account, some payment services like CoinGate charge a 1% withdrawal fee for European international banks and 0.5% on U.S. banks.⁷⁵

Transaction fees: The amount charged per transaction also varies between payments processors. This can range from 0.5% to 1% of the transaction amount. Some may even charge lower than 0.5% like Coinqvest, but the merchant would have to have more than 1,000 accrue sales.⁷⁶

Can it be easily integrated into existing business systems?

A recent study reveals that a merchant's acceptance of a new payment method largely depends on the relative ease of integrating it into its existing business system.⁷⁷ This is because not all merchants, particularly smaller merchants, may possess the technical expertise to integrate crypto payments, let alone manage them. It would often result in additional investments in money and time to learn and understand the processor's technology, which is why merchants have a strong preference for an intuitive and easy-to-use payments system. An example of this is if the merchant chooses to accept "on-chain" payments as it would require the merchant to work with its entire organization to allow digital assets for transactions.

A more straightforward method is mentioned in Chapter 2, wherein a merchant's website can integrate crypto payment gateways via a plugin developed by the payments service provider. For example, Coinbase has API integrations and e-commerce integrations with Shopify and WooCommerce, enabling merchant websites to easily accept crypto payments on their websites.

What cryptocurrencies are accepted?

Bitcoin and Ether are the top two most popular coins that even non crypto enthusiasts will likely have heard of. Yet other cryptocurrencies exist, which in February 2022, the total was already more than 10,000.⁷⁸ Ownership of crypto assets other than Bitcoin or Ether may have much to do with preference, so a payments processor that can accommodate more than one cryptocurrency would allow merchants to be more flexible. Aside from that, some altcoins are more popular in other countries, making them the preferred payment method of some users.

⁷⁵ More information about CoinGate pricing [here](#)

⁷⁶ More information about Coinqvest pricing [here](#)

⁷⁷ See "Study on New Digital Payment Methods", Kantar Public, March 2022

⁷⁸ More about the number of crypto coin from 2013 to 2021 [here](#)

Conclusion on the Future of Cryptocurrency Payments

Right now, it is uncertain how cryptocurrency payments will develop in the future. One of the widely discussed possibilities is mobile payments, including integration with Apple and Android Pay. MetaMask recently announced that its users can use their Visas and Mastercards tied to Apple Pay to purchase cryptocurrencies. That is achieved via Wyre API; however, the maximum sum is now limited to \$400 daily.⁷⁹ Though now Apple Pay can already be used to buy crypto, paying with crypto using Apple Pay has not been implemented yet. On the other hand, some crypto payments processors, such as Coinbase, BitPay, 7StarPay or Circle, already have mobile apps that support mobile payments. Hopefully, people could pay with crypto by simply using their smartphones soon.

Other considerations regarding the future of crypto payments are scalability, security, regulatory measures and reliability. Currently, the crypto payments industry is gaining momentum; however, it is still not widely used due to lack of people and companies' confidence in crypto payments infrastructure. What's more, crypto

payments can be novice-unfriendly, as people have to take too many things into consideration, such as gas fees, seed phrases, self-custody management, etc. Therefore, the whole industry still has to grow and evolve: have more stable instruments of exchange, well-balanced privacy mechanisms and proper development of custodial facilities. To achieve widespread use, custodians and payments processors have to combine security and reliability with an easy-to-use and convenient interface.

Although the conditions, regulation and technology are unequally developed in various parts of the world, this will not be treated like an obstacle but like an opportunity. It is now an exciting time to make crypto payments mainstream by putting consumers' experience and protection first and lead the innovation. Even now crypto payments are attracting people and companies for their lower payment costs, increased optionality and easier access to the global market. All of these can become a strong driver of a world's future transition to the digital economy.

⁷⁹ See ["MetaMask rolls out Apple Pay integration and other iOS updates"](#), Ornella Hernández, Cointelegraph, March 29, 2022

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