Module #4.5

Professional Services

Professional Services

4.5.0 Introduction

> **I think that the Internet is going to be one of the major forces for reducing the role of government. The one thing that's missing, but that will soon be developed, is a reliable e-cash, a method whereby on the Internet you can transfer funds from A to B without A knowing B or B knowing A. The way I can take a $20 bill, hand it over to you, and then there's no record of where it came from. You may get that without knowing who I am. That kind of thing will develop on the Internet and that will make it even easier for people using the Internet.**
>
> Milton Friedman 1999

Many companies and people missed the importance of the internet when it first started and continued to do so as it evolved to deliver the wide range of capabilities we take for granted today, that have revolutionised many aspects of our lives. Early users - around the time of this quote - struggling to send emails over a slow dial-up modem would have found it hard to imagine walking around with a mobile device providing on-demand access to the broad range of applications available today.

Cloud technologies had a similar disruptive effect, starting with the launch of basic storage services a few years before Bitcoin was launched, initially being perceived as simply a variation of offsite hosting, but becoming the predominant platform for delivering IT services and continuing to develop new capabilities and features at an accelerated rate that is hard to keep up with.

The missing link for unlocking the next stage of value from the internet, as Friedman pointed out early on, is a reliable digital equivalent to cash that can be used to pay for value delivered over the internet, which Bitcoin delivers. It has grown organically, with no marketing budget or large companies behind it, on a faster adoption curve than the internet to become the 'e-cash' Friedman saw as this missing link.

It allows people and companies to transact with each other globally without requiring permission or systems from the Government. It will unlock a new wave of innovation and collaboration globally, and companies that understand this and adopt it earlier will be the biggest beneficiaries.

4.5.1 Bitcoin for Professional services providers

Professional services generally describe businesses that offer services and expertise instead of a manufactured good. If you are one of them, then this chapter describes the potential impact on this industry, how having a trust-less form of digital cash available globally may affect the way you do business, and the types of services that can be offered to capitalise on this development.

Why consider Bitcoin?

Bitcoin can offer up new avenues for existing services, have an impact on how current services may need to adapt, and offer the possibility to build new adjacent services based on your current skills and industry knowledge.

Adding bitcoin to the discussion with existing customers

In the current environment, bitcoin is still more of a B2C play. A Professional services company with customers such as hotels or restaurant chains can consult with those clients to incorporate bitcoin payments for their end customers.

As the market matures, adding Bitcoin as a payment option for their own services could also advertise capabilities in this space. Bitcoin holders tend to be keen to search out and use services from companies for which they can pay in Bitcoin.

How Bitcoin might affect existing services

For professional services organizations, the rise of a Bitcoin economy could demand a more collaborative approach where vendors, suppliers, consumers and even competitors will have a more transparent exchange of data and insight to the shared ecosystem. Bitcoin is all about the ecosystem it serves, levelling the playing field and re-distributing power and accountability to those who interact within it. As an example, Nostr (Notes and other stuff transmitted by relay) is a new social media platform that provides a direct link between the user community for the exchange of information and value using Bitcoin.

In the same way the Cloud has enabled global collaboration and provided greater access to IT resources to a broader consumer base, Bitcoin can enable access to a transparent and open form of money to a global audience. Professional services organisations will need to look at the solutions they offer to consider how this change may affect the way they deliver existing services and products to their customers.

New services based on the Bitcoin ecosystem

In addition to affecting existing services, Bitcoin and the ecosystem that is being built upon it offers the opportunity to create new services as alternate or entirely new revenue streams for professional services companies. Some examples of these are provided below:.

Professional Services

Accounting

Background

While bitcoin may not be a conventional holding among corporate treasurers, a greater understanding of bitcoin may help to explain why corporate treasurers of large, publicly traded companies have started to embrace it in recent years. Many of bitcoin's properties, such as a maximum supply of 21 million tokens and verifiable scarcity on a public blockchain, may make it an attractive aspirational store of value. This critical segment of a portfolio could potentially be a valuable hedge against growing fiscal deficits, currency debasement, and geopolitical risks. As corporate treasurers grapple with new economic headwinds, bitcoin's unique properties have acted as tailwinds.

Traditionally, corporate treasuries have managed cash conservatively by allocating most of the capital to what are often perceived as low-risk assets (e.g., bank deposits, money market funds, treasury bills, commercial paper, and repurchase agreements). However, uncertain economic factors including inflation, interest rates, and heightened geopolitical risks may be causing corporations to reconsider the viability of such strategies. Investment analyst and writer Lyn Alden describes three types of inflation: monetary inflation, asset inflation, and consumer price inflation (CPI). Monetary inflation (an increase in the broad money supply as measured by M2) does not guarantee but is a precursor to asset inflation (an increase in the price and valuation of investable assets) and consumer price inflation (an increase in the price level of non-financial goods and services).

Depending on the type of business, corporations could be impacted by both asset price inflation and consumer price inflation. For example, asset price inflation could lead to an increase in the value of assets a company may want to invest in or acquire, and consumer price inflation could lead to greater inventory costs relative to the purchasing power of cash.

Why Corporate Treasurers May Look to Invest in Bitcoin

Professional services firms should be aware of the growing number of corporates that are adding bitcoin to their balance sheets, and why, for example MicroStrategy, and Metaplanet.Understanding the advantages of being able to use your balance sheet as a driver of shareholder value adds value to the advice that a professional services firm can provide to its clients.

Regulations

Numerous regulatory developments around the world regarding digital assets have given investors more confidence in bitcoin as an investment. With ever increasing market data and price history, digital asset-friendly regulations such as the European Union's (E.U.) Markets in Crypto Assets (MiCA) legal framework, and the U.S. SEC's approval of a spot bitcoin exchange-traded product in January 2024 have offered investors and companies some assurance and clarity for which they have been looking.

FASB Accounting Rule Change

In December 2023, the Financial Accounting Standards Board (FASB) updated its guidelines for how companies should account for and report bitcoin and other digital assets on their corporate balance sheets. These new rules benefit companies that hold bitcoin by allowing them to use fair value accounting, finally allowing companies to also mark assets up to market. Previously, companies were only allowed to mark digital asset positions down. The new guidelines could give a better view of the company's financial statements and financial health by showing a more accurate representation of the true value of bitcoin held.

Bitcoin Price Performance Over Time

As a thought experiment, consider what the average S&P 500 company's balance sheet would look like if they had invested just 1% of their corporate treasury balance in bitcoin over the last five years. Assuming an average treasury size of $10 billion, consider if a 1% ($100 million) allocation to bitcoin was made in June 2019 at $10,000. Despite an initial drawdown and periods of volatility, the bitcoin position would have eventually recovered and grown to approximately $700 million by June 2024. While the company could face short-term earnings volatility, the company's long-term financial performance would be significantly enhanced, especially during high inflationary periods that have followed the onset of the COVID-19 pandemic.

ESG Reporting?

Opportunities

- The current uncertain and high-inflation economic environment has been pushing forward-thinking corporate treasurers to consider adding bitcoin to their balance sheets. The series of balance sheet allocations to bitcoin from Block Inc., MicroStrategy, Stone Ridge Holdings Group, and others represent a trend that could continue to grow as businesses weigh the risks of diminished liquidity due to elevated interest rates and the potential loss of purchasing power of cash due to central bank monetary and fiscal stimulus.

- Companies that choose to allocate to bitcoin can benefit from outperformance due to bitcoin's value rising over time, and accountants that understand the potential benefits and implications of this approach stand to benefit.

Financial Services

Background

The convergence of the financial services and technology industries has created a level of uncertainty, with innovations such as peer-to-peer payment technology disrupting infrastructure, operations and business models.

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While these innovations drive more customer-focused solutions at lower costs, they are also putting unprecedented pressure on financial institutions to become more responsive and agile.

The Financial technology (Fintech) industry includes a broad array of companies that utilise technology to deliver innovative services such as online payments, mobile applications, often working with traditional currencies and payment systems.

Crypto currencies use blockchains and cryptography to deliver alternative digital currencies, which are designed to provide transparency, security and borderless transactions. This market has evolved over several years to include different solutions and is the basis for Central Bank Digital Currencies (CBDCs) being developed by Governments around the world. This has led to some confusion in the market with different solutions vying for attention from businesses and Government. None of these solutions provide the desired benefits of a decentralised, open-source and permissionless form of money except Bitcoin.

Opportunities

- **Global FX transfers:** The existing financial rails used to transfer money around the world are expensive, cumbersome and slow, as well as not being available to all potential participants. This opens up the opportunity to offer cheaper, more transparent and efficient financial transfers between any two parties globally. This could be based on the US Dollar using solutions such as USDT (Tether), or using bitcoin directly via the Lightning Network.

- **Advisory services:** Adoption of Bitcoin as the best solution to meet customer needs – an understanding of the superior properties of Bitcoin as a store of value and the ecosystem being built around it - offers the opportunity to provide advisor services to clients on how they can benefit from bitcoin adoption, as well as positioning it against the alternatives.

Audin and Assurance Service

Background

Blockchain technology has the potential to impact all record keeping processes, including the way that transactions are initiated, processed, authorised, recorded and reported. This may have an impact on activities such as financial reporting and tax reporting. Chartered accountants will need an understanding of the technology used to create and confirm Bitcoin transactions and how these are stored on the blockchain ledger in comparison to traditional ledgers.

Although outside the scope of this module, other alternative solutions based on the idea of blockchains do exist, such as CBDCs, ‘stablecoins’ and other smart contract focused solutions. An understanding of these solutions and the potential impact if a client has chosen to deploy them will also necessitate an understanding of how these work. This expertise will be critical to answering questions such as whether they are decentralised and public or ‘permissioned’ and managed by a consortium of protocol owners, as an example for supply chain management This will have an impact on what validation techniques may be required for an effective audit trail.

- **Smart contracts:** Smart contracts are a method to automate the contracting process and enable monitoring and enforcement of contractual promises with minimal human intervention. Automation can improve efficiency, reduce settlement times and operational errors. Because using smart contract technology requires the translation of all contractual terms into logic, it may also improve contract compliance by reducing ambiguity in certain situations. However it may require a level of technical knowledge to implement and monitor which the team does not currently possess. A CPA auditor may be required to verify the interface between smart contracts and external data sources that trigger business events. Without an independent evaluation, users face the risk of unidentified errors or vulnerabilities.

- **ESG reporting:** Engaging with bitcoin could allow corporations to gain positive advantage in their ESG reporting, which is now a compulsory and large part of their required regulatory reporting. The KPMG paper which was written in 2022 describes how Bitcoin mining can encourage the adoption of renewable energy, balance energy grids utilising intermittent renewable energy sources, reduce methane emissions and help to recycle the heat generated by data centres.

Opportunities

To take on the new role, an auditor may need a new skill set:

- Understanding of technical programming languages
- Effective methods of data collection from the Bitcoin blockchain for audit usage
- Implementation differences between solutions and the impact this has on trust and ownership of the protocol
- Auditing a smart contract for compliance to regulations and third-party controls
- Dispute arbitration for smart contracts according to any applicable legal framework
- Understanding of the ESG implications of bitcoin adoption

Financial Advisors

Background

As well as holding digital assets directly, many wealthy individuals and family offices are allocating a portion of their new investments to funds that invest in specific digital assets or digital asset projects. While the new bitcoin spot ETFs enable the ability to hold investments which track the performance of bitcoin without taking on the custody risks attached to holding the asset itself, the most secure way to protect long term value is to learn how to hold the asset directly.

Encouragingly, it seems regulators have generally accepted that digital assets like bitcoin are here to stay and so, rather than considering whether they should be outlawed or not, they are focusing now on striking a balance between developing the industry and protecting investors.

Professional Services

It is essential to obtain comprehensive local and holistic advice on the multijurisdictional regulatory treatment of a digital asset investment strategy and the interplay of one regime with another.

Different jurisdictions also have varying ways of treating digital assets and the gains derived from them for tax purposes. A similar approach to the regulatory analysis outlined above will need to be adopted for tax, with specialist local tax advice being obtained as well as a more holistic international perspective.

Concerns around data security necessitate the implementation of strong cyber security measures to ensure that both financial assets and personal information are adequately protected.

Most family offices retain a third-party specialist crypto custodian to hold their cryptocurrency and the relevant private keys. A service provider should have in place the most robust security systems currently available, require multiple layers of authentication from various internal stakeholders to execute any trade, and have insurance which covers the loss of the asset in the event of fraud or a cyber attack.

Opportunities

Advisors to family offices and wealthy individuals can offer a variety of services based on this market dynamic:

- Digital asset security management
- Cyber security advisory
- Bitcoin secure storage advisory
- Tax implications
- Bitcoin as part of an overall portfolio management
- The development of new legal and compliance protocols, such askey signing ceremonies for transfers

Marketing Consultancy

Background

There are many professional services companies focused on providing marketing services, from helping customers in defining a strategy and creating content, to building websites and driving traffic to them.

Any digital marketing strategy should include a plan for using online channels to establish an internet presence and achieve specific marketing objectives. Ultimately, the goal is to boost the visibility of any business and attract new customers using a variety of channels.

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One example of a new channel which is closely aligned with Bitcoin is Nostr.. Like Bitcoin, this is a decentralised open-source platform where the user retains ownership of data by using a private key. Nostr's censorship-resistant architecture ensures that business communications, marketing messages, and customer interactions are free from external interference.

This is particularly valuable for businesses operating in industries where regulations are strict or where freedom of speech is a concern. Moreover, Nostr's use of a single private key to access multiple interfaces simplifies account management, providing peace of mind by being able to switch between different applications seamlessly. Integration with Bitcoin and Lightning also enables global transaction and micro-payments – a feature of Lightning that opens up new methods of marketing.

Opportunities

Assisting customers with their marketing may include initiatives to:

- Establish thought leadership on Bitcoin in related technology area to the business
- Attract new customers with Bitcoin focused products and services
- Increase brand awareness in the Bitcoin space

The marketing plan may include initiatives such as:

- Build a new website landing page focused on Bitcoin and/or Lightning
- Embed Bitcoin messaging into existing marketing campaigns
- Manage Product or service launches related to Bitcoin
- Grow social media following on targeted platforms related to Bitcoin content and evaluate the use of newer platforms such as Nostr
- Contribute to open-source software

Building a depth of knowledge in these areas will open up new types of marketing services that can be developed and sold to the existing or new client base.

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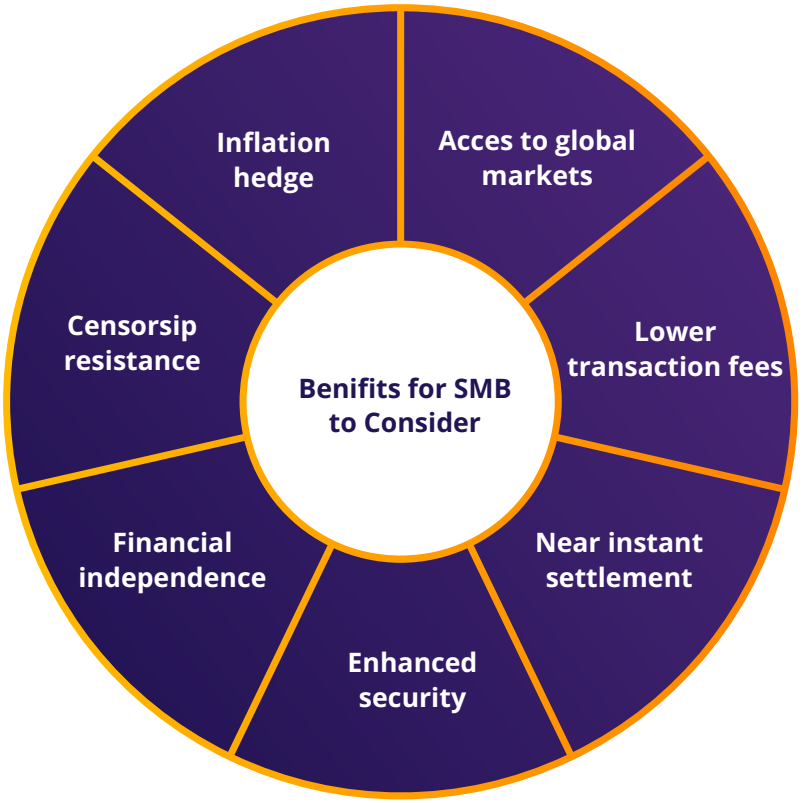
Services targeted at the Small Business Sector



For a professional services business, there are several potential benefits to Bitcoin adoption that the SMB sector should be interested in, and services can be designed to meet each of these:

- Market reach: the online Bitcoin community will travel further and research online to buy from companies that adopt Bitcoin. This can open up a new potential customer base for a smaller company.
- Taking Bitcoin as payment can settle faster with lower fees than conventional methods of payment.
- Bitcoin secure storage advisory
- Bitcoin can also enhance security for online transactions due to the inherent features of the underlying technology, as well as not being reliant on the traditional banking system, making it resistant to censorship
- Keeping some or all of the received Bitcoin in a secure wallet can help to preserve wealth, especially in countries with fast depreciating fiat currencies, making it a good long term investment opportunity

Opportunities

As smaller companies will tend to rely on fewer service companies compared to an enterprise, if a professional services organisation is targeting this market then it would be beneficial to be able to advise them on all aspects of Bitcoin adoption.

Healthcare

Being ahead of where an industry is heading will enable Professional Services companies in that sector to continue to deliver value to their clients. A couple of examples in healthcare can illustrate how innovation based on Bitcoin can disrupt an industry sector by solving real problems in the market.

Secure Data management – example Nostr

The ownership and secure sharing of patient data is a key concern with standards such as HIPAA in the United States being put in place to ensure that the data is adequately protected.

The healthcare industry can potentially benefit significantly from Nostr's decentralized and secure nature. As highlighted in a recent pilot project in El Salvador, the Nostr-based SALUD protocol aims to revolutionize how patient data is managed and shared. By decentralizing health data, Nostr ensures that patients retain ownership of their medical records while allowing healthcare providers to access accurate and tamper-proof data when needed.

This approach addresses significant concerns with current healthcare data management systems, where patient information is often controlled by centralised entities that may monetize or misuse the data. With Nostr, the risk of data breaches or unauthorised access is minimised, and patients can opt out of data sharing if they wish without losing control over their information.

A second example of how Bitcoin can be incorporated into new approaches to Healthcare is CrowdHealth.It has created a platform that leverages Bitcoin’s costs and settlement advantages through an integration to a Lightning wallet to make and receive payments. These payments are owned by the contributors, who can then call on the community if they face a large medical bill.

These are examples of how the rapidly developing Bitcoin ecosystem is disrupting one specific industry, and many more examples can be found in other industries. Professional services organisations that are focused on a specific industry may be able to either benefit from helping that industry adopt such solutions, or be the innovator that brings these types of solutions to new industry verticals as the market evolves.

4.5.2 Building out the Bitcoin ecosystem

Bitcoin is and has always been the lead blockchain, but the required focus at layer one on security and decentralisation initially left a gap for other capabilities in the market, which other blockchain based solutions emerged to try and fill. For various reasons these have not seen a great deal of commercial success over the years, and the Bitcoin ecosystem has now grown to a stage where these new types of capabilities can be built on it without adversely impacting the underlying core layer one technology.

In addition, many Bitcoin users are long-term holders, viewing it as a store of value or a form of digital gold. Bitcoin maximalists are a large subset of this community who believe that it is the only cryptocurrency that will stand the test of time. They argue that Bitcoin's decentralised nature, security, and first-mover advantage make it superior to all other digital currencies, differentiating them from alternative blockchains.

There is also a huge and growing amount of value secured within the Bitcoin network by these holders, so growing Bitcoin's native ecosystem will not be a matter of attracting new users. Instead, projects will need to capitalise on the vast reservoir of users, developers, and capital already on the network. This gives rise to several opportunities to expand the Bitcoin ecosystem upon which professional services can be built:

1. **Enhance Scalability:** There are already several scaling solutions operating on the Bitcoin network, such as the Lightning Network. However, others are also being built to target different problems. For example to deliver comprehensive scaling solutions offering secure, decentralised and efficient platforms for smart contracts.

2. **Facilitate Smart Contracts**: Imagine a contract that runs itself automatically, with no need for lawyers or middlemen. That's what Bitcoin smart contracts do. Bitcoin smart contracts are self-executing contracts with the terms of the agreement directly written into digital code. They automatically execute and enforce the contract when predetermined conditions are met, without the need for intermediaries.

3. **Foster Interoperability**: Building bridges and connectors that allow seamless interaction between Bitcoin and other blockchains. This would enable users to move assets across chains effortlessly and tap into the best features of each network. An example would be USDT – a stablecoin that can be transferred across many different blockchains where users will typically choose the lowest price. Enabling USDT held on one of these alternate blockchains to be transferred to Lightning and Bitcoin can enable interoperability and migration of value to the more secure Bitcoin network.

4. **Integrate User Friendly Experiences**: As the ecosystem grows, there is a need for tools that simplify the development and deployment process for developers. This includes better wallets, development frameworks, and debugging tools. Beyond this, user friendliness is essential for those users who may be less technologically literate to interact and participate in the ecosystem.

5. **Education and Community Building**: A strong community is the backbone of any successful blockchain project. Investing in education, workshops, and community-driven initiatives can help users discover, developers build, and investors connect.

Opportunity

This opens up a number of potential services that can be created for the market to advise consumers and other businesses around the Bitcoin ecosystem, which is already happening around the world:

Advisory	Education	Buy, hold and sell Bitcoin

4.5.3 The Future

What might happen in the future?

The previous section has provided several examples of the types of services that are being offered in the market today, but what kind of solutions may become available in the future that companies could build professional services around to consult, analyse, design and implement to meet evolving customer requirements?

E-Voting

One example of the potential applications that can be built on Bitcoin is securing Government elections.

- **Current situation and challenge:**
  Democratic elections are designed to ensure that power is transferred in accordance with the outcomes, and that the elected government reflects the will of the people.This requires that eligible voters can participate in the process free from intimidation, that all votes are counted properly, no counterfeiting of votes is possible and that the outcome is transparent. Around the globe, elections are often perceived as not meeting this goal, with

- **Existing proposals:**
  Governments have tried various means to ensure fairness of the election process, requiring Voter ID, or independent counting of votes using a paper based approach, but challenges still remain. Governments like the EU are 'investigating' ways to use alternative blockchains and protocols to achieve the end-goal of a transparent and tamper-proof electronic voting system. However, this still requires trust in whoever is creating and running the system and will be developed according to the Government timescale.

- Bitcoin based alternatives have already been developed that use its open-source capabilities to deliver the desired outcome of a transparent, tamper-proof method of running elections.

Guatemala:

- Thanks to OpenTimestamps, a tool created by bitcoin developer Peter Todd a few years ago, Guatemalan tech startup Simple Proof is able to safeguard key documents about the country's presidential elections from fraud and tampering. Todd's tool, which leverages hash functions and the bitcoin blockchain, is able to timestamp pieces of information and make it easier to spot attempts at fraud and manipulation.

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Open source decentralised electronic voting protocol: HodlParman – an active proponent for Bitcoin – recently announced:

- 'I've been working on a decentralised electronic voting protocol that's fully peer to peer, eliminates the possibility of electoral fraud or double voting, keeps votes private, and is verifiable by anyone. It benefits from Nostr relays, and Bitcoin's clock, and DOES NOT require a blockchain or token'

As we can see, there is the 'conventional' approach to solving a known problem, in this case electoral trustworthiness, which is still being developed and will not necessarily resolve all of the issues, and a new approach based on the Bitcoin ecosystem that has already been developed and is available that has the potential to resolve them. Gaining an understanding of these types of solutions and how they can be used to deliver services to the market, including in this case Government, will provide potential new revenue streams.

Sats rewards

The ability to deliver small amounts of bitcoin for payment at virtually no cost opens up different avenues for companies to explore, around which a Bitcoin focused services company could provide advisory services for such as:

- Using platforms such as strategy for employee rewards
- Bitcoin-friendly podcast platforms such as Fountain, rewards for attending live streaming using NOSTR and zap streaming
- Paying people to complete surveys to encourage participation

Summary

The Professional services industry is broad in scope, covering businesses of all sizes, focus and reach. Whatever the focus, these examples have hopefully shown that Bitcoin and the associated ecosystem has the potential to drastically affect this industry, changing the way services are delivered and opening up new opportunities.

Professional service organisations that take the time to understand these dynamics early can get ahead of the curve.

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Some example companies offering Bitcoin services

River
https://river.com

Swan
https://www.swanbitcoin.com

CoinCorner
https://www.coincorner.com

Strike
https://strike.me

Relai
https://relai.app

Musqet
https://musqet.tech