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PRIMER FOR INSTITUTIONS

How to participate in BTCFi

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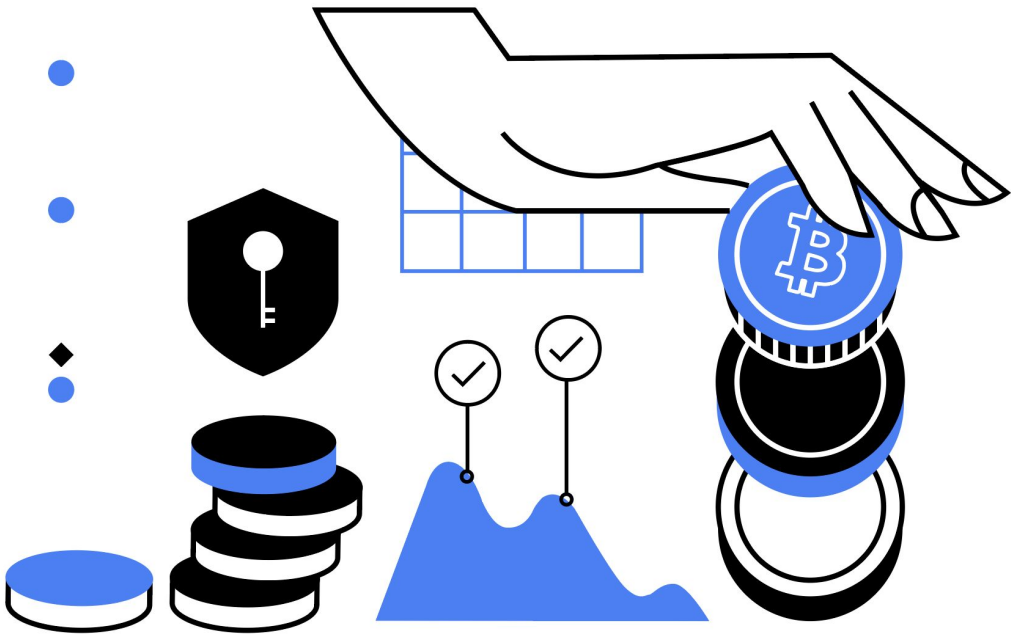
Executive summary

Bitcoin was originally designed as a peer-to-peer electronic cash system. As a result, its design limits it to simple but secure transactions, such as sending and receiving.
It doesn't have smart contract capabilities, which allow for more complex onchain actions.

With innovations like the Lightning Network and the Taproot upgrade, this has started to shift. There are now a number of Layer 2 solutions and Bitcoin-native projects that let Bitcoin (BTC) holders do much more than simply hold BTC. Growing use cases include:

- **Staking**: Locking BTC to collect rewards
- **Liquid staking**: Retaining the flexibility to participate in decentralized finance through liquid receipt tokens
- **Decentralized finance**: Engaging in borrowing, lending, and liquidity provisioning via wrapped BTC

Moreover, the advent of Bitcoin ETFs and a clearer regulatory environment are setting the foundation for the continued adoption of Bitcoin. With total value locked (TVL) in the Bitcoin onchain finance ecosystem exceeding $5bn—having grown from just over $300m in the past year—the momentum behind Bitcoin staking represents an opportunity for institutions and BTC holders to actively participate in the next phase of decentralized finance.



Bitcoin staking overview

Bitcoin staking enables BTC holders to lock up their BTC and collect rewards.
As a proof-of-work (PoW) protocol, the Bitcoin network itself doesn't support staking. However, a number of Layer 2 solutions and Bitcoin-native projects are enabling BTC holders to participate in more complex onchain activities.

There are two ways that Bitcoin L2s enable staking:

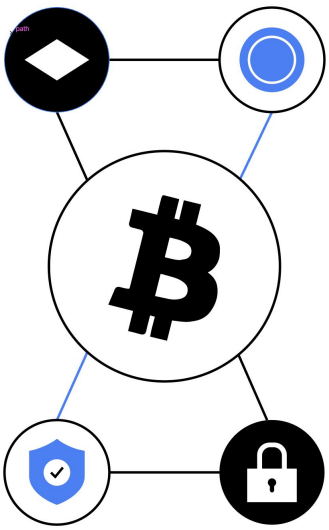
- **Locking**: BTC is locked up and remains in custody while it accrues rewards. An example of a project that enables BTC staking by locking is Babylon. In this example, the coins would remain in self-custody, or in custody with a custody provider like Anchorage Digital Bank.
- **Bridging**: The BTC is sent to a bridge operator in return for a receipt token that can be used in an EVM L2. One example of a project that enables bridging functionality is Build on Bitcoin (BOB).

With BTC staking, holders can:

- Enjoy the benefits of both holding their coins and collecting rewards
- Bring security and value to other emerging networks

Notable projects that enable Bitcoin staking include:

- **Babylon**, a Cosmos-ecosystem protocol that lets BTC holders natively lock their BTC to provide security to other proof-of-stake (PoS) chains and collect rewards. With the upcoming Phase II milestone, the Babylon L1—named Babylon Genesis—will launch on mainnet and enable permissionless BTC staking while letting holders maintain self-custody of their BTC.
- **BOB**, a unique Hybrid Layer 2 that combines Bitcoin's security with Ethereum decentralized finance. BOB is implementing BitVM technology to enable trust minimized BTC deposits into decentralized finance positions, with a focus on Bitcoin liquid staking tokens (LSTs). With Bitcoin finality rolling out in the near future, deposits, withdrawals and all decentralized finance transactions on BOB will soon be secured by Bitcoin.



Technical considerations

Institutions exploring Bitcoin staking need to address critical technical factors to ensure secure and efficient participation. These considerations range from selecting address formats to choosing the right custody model.

1. Taproot vs. SegWit addresses

Bitcoin's address format determines transaction efficiency and compatibility with advanced use cases:

SegWit (Segregated Witness)

Reduces transaction size and fees by separating signature data, ideal for standard, cost-effective transactions.

Taproot

Enhances privacy and enables complex smart contracts, making it the preferred choice for advanced applications like Layer-2 solutions.

Choosing the right address format optimizes costs and ensures readiness for future Bitcoin applications.

2. Custodial vs. self-custodial solutions

Custodial

Delegates storage to providers offering security, compliance, insurance, and reduced operational complexity.

Self-custodial

Maintains full control over Bitcoin holdings, but requires secure infrastructure.

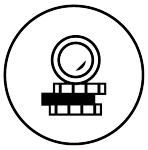
Institutions should weigh the ease and security of custodial solutions against the autonomy of self-custodial setups.

3. The mechanism of BTC staking

Before deciding to stake, it's important to understand the cross-chain nature of the project. Many PoS Bitcoin Layer 2s don't natively inherit Bitcoin's security and trust assumptions.

The future of proof-of-work assets in decentralized finance

As the largest proof-of-work (PoW) asset, Bitcoin's role in decentralized finance is evolving through tokenization and smart contract capabilities that enable increasingly complex onchain actions, scalability improvements, and growing institutional participation.



Tokenization of Bitcoin

What it is: Converting BTC into tokenized forms, such as Wrapped BTC (WBTC), allows it to interact with decentralized finance ecosystems on Ethereum and other blockchains. This does not require BTC staking—holders can access WBTC from multiple centralized and decentralized exchanges, and use it in decentralized finance platforms for borrowing, lending, and more.

Key benefits:

- Enables you to gain access to non-Bitcoin staking.
- Interoperability with decentralized finance applications, enhancing Bitcoin's utility beyond storage.

Why it matters: Tokenization extends Bitcoin's functionality, enabling asset holders to participate in decentralized finance using Bitcoin in multiple onchain ecosystems (e.g. EVM, Tendermint).

Scalability via Layer-2 solutions

What it is: Layer-2 protocols, such as Lightning, enable fast and cost-effective Bitcoin transactions.

Benefits:

- Makes Bitcoin more practical for everyday use, including micropayments.
- Reduces network congestion, improving scalability for broader adoption.

Why it matters: Scalability solutions position Bitcoin as a competitive asset in the evolving decentralized finance landscape. Expanding on Bitcoin's traditional role as a store-of-value digital asset, these solutions enable growing utility for everyday use cases such as payments, and transactions that require speed, such as trading.

The future of proof-of-work assets in decentralized finance (cont.)

As the largest PoW asset, Bitcoin's role in onchain finance is evolving through tokenization, smart contract capabilities that enable increasingly complex onchain actions, scalability improvements, and growing institutional participation.

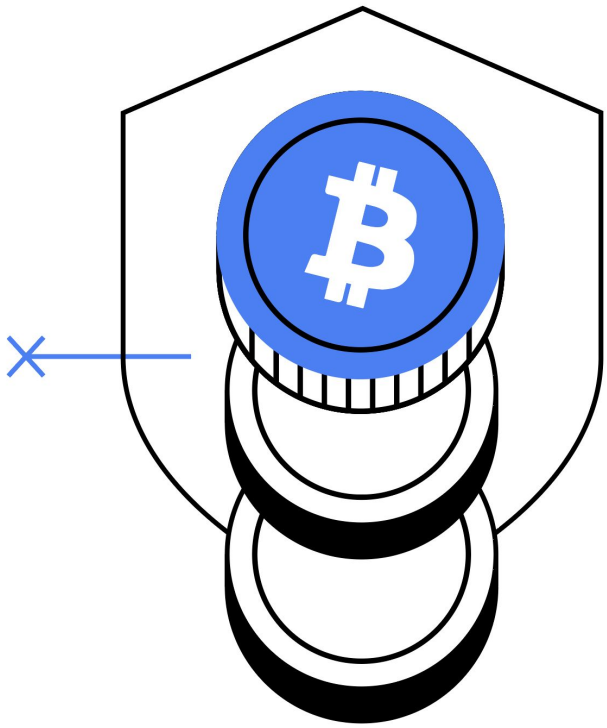
Smart contract capabilities

What it is: Along with smart contract capabilities, Bitcoin-native decentralized finance has grown. Asset holders can now do so much more than just sending and receiving Bitcoin, including lending and borrowing without needing to bridge to other chains.

Benefits:

- New Bitcoin-native use cases combine the flexibility of smart contracts with Bitcoin's robust security.

Why it matters: Asset holders can participate in a growing decentralized finance landscape in a myriad of ways, benefiting from the flexibility of smart contracts with Bitcoin's security.



Checklist for institutions

To effectively engage in BTCFi, institutions must navigate regulatory, operational, and technical considerations. This checklist provides a step-by-step, but not exhaustive, guide to promote seamless participation and alignment with an organization's goals.

1. Evaluate regulatory compliance

- ☐ Confirm adherence to local and international cryptocurrency regulations and standards.
- ☐ Implement robust KYC/AML policies to meet legal requirements.
- ☐ Engage legal counsel to review staking-related activities for legal or regulatory risks.

2. Select the right custody model

- ☐ Choose providers offering secure storage, compliance, insurance, and regulatory oversight—such as those that are federally chartered banks in the U.S., or are licensed by the Monetary Authority of Singapore.

  Tip: Select a custody model that balances control, scalability, security, and ease of use.

3. Assess technical infrastructure

- ☐ Adopt address formats compatible with staking activities (e.g., Taproot for privacy and scalability).

3. Assess technical infrastructure (cont.)

- ☐ Determine how you would like to stake—whether trusting to a partner or custody validator, or running your own node.
- ☐ Implement scalability solutions like Layer-2 protocols to reduce transaction costs.

4. Mitigate risks

- ☐ Perform regular audits to ensure the security of wallets and staking operations.
- ☐ Develop contingency plans to address market volatility.

5. Align staking with organizational goals

- ☐ Define clear objectives for BTC staking (e.g., which non-BTC rewards you earn, networks to support, or financial ecosystems to participate in).
- ☐ Monitor performance metrics and staking rewards to evaluate results.

Conclusion: the opportunity in BTCFi

Bitcoin staking represents a unique opportunity for institutions to move beyond buy-and-hold, and actively participate in the growing Bitcoin decentralized finance ecosystem. While Bitcoin's PoW consensus mechanism doesn't natively support staking and participation, innovative frameworks have unlocked new avenues for collecting rewards and engaging in crypto networks.

Takeaways

1. **Collecting rewards:** Institutions can receive rewards on idle BTC holdings (including non-BTC returns) through staking-like mechanisms, while reducing reliance on price appreciation.
2. **Scalability and network support:** By participating in Layer-2 networks or running nodes, institutions can strengthen different crypto networks.
3. **Positioning for the future:** Early adoption of Bitcoin staking signals innovation and leadership in digital assets, providing a competitive edge in the evolving financial landscape.

Actionable steps for institutions

To fully capitalize on Bitcoin staking opportunities:

1. Assess regulatory and compliance requirements to mitigate risks.
2. Select the right custody and staking partner.
3. Address technical requirements, including address selection.
4. Align staking activities with broader firm goals to maximize impact.

The future of Bitcoin in decentralized finance is one of increasing institutional interest. By leveraging staking mechanisms, institutions can unlock new value while contributing to crypto growth and innovation.

About Anchorage Digital

Anchorage Digital is a global crypto platform that enables institutions to participate in digital assets through custody, staking, trading, governance, settlement, and the industry's leading security infrastructure. Home to Anchorage Digital Bank N.A., the only federally chartered crypto bank in the U.S., Anchorage Digital also serves institutions through Anchorage Digital Singapore, which is licensed by the Monetary Authority of Singapore; Anchorage Digital New York, which holds a BitLicense from the New York Department of Financial Services; and self-custody wallet Porto by Anchorage Digital. The company is funded by leading institutions including Andreessen Horowitz, GIC, Goldman Sachs, KKR, and Visa, with its Series D valuation over $3 billion. Founded in 2017 in San Francisco, California, Anchorage Digital has offices in New York, New York; Porto, Portugal; Singapore; and Sioux Falls, South Dakota. Learn more at anchorage.com, on X @Anchorage, and on LinkedIn.