

# bc1q21: Smart Contract Gift Certificate

## Abstract

This whitepaper introduces **bc1q21**, a groundbreaking Smart Contract Gift Certificate protocol built directly on the Bitcoin blockchain. bc1q21 empowers users to gift Bitcoin (BTC) in a structured, programmable, and sustainable format — ideal for personal milestones and long-term philanthropic impact. By leveraging emerging Bitcoin-native smart contract functionality, bc1q21 ensures secure, scheduled disbursements of BTC, while implementing a transparent handling fee system to sustain the ecosystem's development and outreach.

## Introduction

Conventional Bitcoin gifting lacks programmability and long-term structure. Once funds are transferred, the sender forfeits all control over how or when they are used. This limitation restricts broader applications such as legacy giving, milestone-based disbursements, and donor-intended philanthropy.

**bc1q21** redefines this experience. It allows users to predefine the release schedule of gifted BTC — whether for family inheritance, charitable foundations, or timed personal gifts — while embedding a fair and sustainable compensation model for developers and marketing partners.

bc1q21 turns Bitcoin into a programmable act of generosity, ensuring that the original intent of the giver lives on, potentially for generations.

## Use Cases

- **Personal Gifting:** Birthdays, anniversaries, graduations, weddings.
- **Philanthropy:** University scholarships, church tithing, environmental contributions.
- **Legacy Planning:** Ongoing charitable giving after death; family estate planning and trusts.
- **Emergency & Community Support:** Rapid, secure, and unrestricted transfers to global causes, crises, and urgent relief efforts.
- **Marketing and Influencer Engagement:** Commission-based referrals through unique QR codes.

## System Architecture

### Core Components

1. **Smart Contract Logic**
  - Records BTC deposits and parameters.
  - Enforces predefined withdrawal schedules.

- Supports only manual recipient withdrawals.
- Locks configuration settings after deployment.
- 2. **Withdrawal Mechanism**
  - Benefactor selects release intervals.
  - Missed withdrawals remain claimable in the future.
  - Each withdrawal is deducted proportionally from total BTC balance.
- 3. **Handling Fee Framework**
  - A fee is deducted for a single one-time time-lock.
  - An additional fee is deducted per each additional scheduled time-lock release.
  - Fees are routed to one or more designated holding wallets.
  - Designated handling fees are accessible for manual withdrawal by developers or authorized parties.
- 4. **Distribution Logic for Fees**
  - QR codes link each contract to a unique fee distribution scheme.
  - Example breakdown (customizable):
    - 75% Developer
    - 25% Influencer/Referrer

## Web Interface

- Enables users to:
  - Enter BTC gift amount
  - Define withdrawal dates and percentages
  - Add a custom message for the recipient
  - Download a unique QR code for delivery
- Once deployed, contract settings become immutable.

## QR Code Functionality

- Provides QR-based access to bc1q21 contract initiation.
- Each contract generates a unique QR code linked to its configuration.
- Recipients access their withdrawal interface via QR scan.
- Affiliate metadata enables transparent commission tracking for marketing participants.

## Security and Simplicity

- Bitcoin's decentralized network ensures unparalleled security.
- Manual withdrawals mitigate risks associated with automated disbursements.
- No dependence on third-party oracles or price feeds.
- All actions are publicly auditable on the blockchain.

## Economic Model

bc1q21 ensures financial sustainability and broad engagement through:

- Developer and influencer incentives built into each transaction.
- Marketing partners compensated through transparent, QR-linked commission systems.
- Aligned incentives that foster long-term product stewardship and ecosystem growth.

## Philanthropic Impact

bc1q21 reshapes charitable giving by making it programmable, transparent, and enduring:

- Recipients receive support gradually, ensuring long-term impact.
- Donors preserve the timing, purpose, and values of their gift.
- Organizations reduce administrative burden and reliance on intermediaries.

Givers can now establish a legacy of sustained impact — long after their own lifetime — with precision and accountability.

## Estate Planning and Inheritance Control

Traditional estate planning often presents challenges: vague timelines, lump-sum disbursements, executor mismanagement, and potential family disputes. bc1q21 offers a forward-thinking alternative.

With bc1q21, benefactors can design structured, automated, and enduring financial gifts. For instance, children may receive yearly BTC distributions for a specified time period, creating their own sustainable legacy.

Once parameters are defined and locked, the contract functions independently — immune to administrative errors, probate delays, or subjective interpretation. It ensures that the benefactor's original intent is fulfilled with mathematical precision and moral clarity.

bc1q21 transforms estate planning into an enduring expression of care, foresight, and lasting purpose — giving families peace of mind and heirs a guided path to long-term benefit.

## Conclusion

**bc1q21** is more than a product — it's a movement toward programmable purpose. By fusing Bitcoin's permanence with smart contract precision, bc1q21 reimagines the act of giving. Whether for birthdays or bequests, charity or legacy, bc1q21 secures your intentions far into the future.

As digital finance evolves, bc1q21 stands at the intersection of trust, technology, and timeless human values.

---

*This whitepaper is a living document and invites open feedback, rigorous review, and shared innovation. Together, we can redefine how the world gives — now and beyond.*