

THE BITCOIN CORPORATION

Bitcoin OS - Project Overview

Open Source Bitcoin-Powered Operating System

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"Open source Bitcoin-powered operating system with built-in wallet, decentralized apps, and blockchain integration"

Project Overview

Bitcoin OS is a revolutionary web-based operating system that brings the power of Bitcoin and blockchain technology to your desktop. Built by The Bitcoin Corporation LTD, it provides a familiar desktop environment while integrating cryptocurrency and decentralized applications seamlessly.

Core Features

- ✓ **Desktop Environment** - Familiar OS-like interface with windows, taskbar, and desktop icons
- ✓ **Built-in Bitcoin Wallet** - Secure wallet integrated at the OS level
- ✓ **Bitcoin Email** - Encrypted email with blockchain storage
- ✓ **Bitcoin Music** - Stream and trade music NFTs
- ✓ **Bitcoin Writer** - On-chain publishing platform
- ✓ **Bitcoin Drive** - Decentralized cloud storage
- ✓ **bApp Store** - Browse and launch Bitcoin applications with tokenized shares
- ✓ **Terminal** - Command-line interface for advanced users

Getting Started

Prerequisites

- Node.js 18+
- npm or yarn

Installation

```
# Clone the repository git clone https://github.com/bitcoin-corp/bitcoin-OS.git #  
Navigate to the project cd bitcoin-OS # Install dependencies npm install # Run the  
development server npm run dev
```

Open <http://localhost:2050> in your browser.

🛠 Development Commands

```
# Development server npm run dev # Build for production npm run build # Start  
production server npm start
```

🏗 Technical Architecture

Core Technologies

- **Next.js 15** - React framework
- **TypeScript** - Type safety
- **Tailwind CSS** - Styling
- **Bitcoin SDK** - Blockchain integration
- **Lucide Icons** - UI icons
- **Metanet Desktop Integration** - BSV wallet connectivity via JSON-API

🔗 Metanet Desktop Integration

Bitcoin OS integrates with **Metanet Desktop** to provide native BSV wallet functionality:

- **JSON-API Communication** - Connects via TCP port 3321

- **WAB Authentication** - Secure app-wallet authentication
- **Transaction Signing** - Sign and broadcast BSV transactions
- **Balance & Address Display** - Real-time wallet information
- **Permission Management** - Granular app permissions

Setup Instructions:

1. Install Metanet Desktop from GitHub
2. Ensure it's running on localhost:3321
3. Bitcoin OS will automatically detect and connect

BCR Standards Integration

Bitcoin OS implements BSV BRC (Bitcoin Request for Comments) specifications:

- **BCR-1 Transaction Creation** - Standardized wallet-to-application interface
- **BCR-103 Identity Certificates** - Verifiable identity with selective disclosure
- **Interactive Learning** - Integration with fast.brc.dev resources
- **Transaction Broadcasting** - Direct BSV network interaction
- **Data Transactions** - OP_RETURN data storage on blockchain

BCR Demo Features

- Create standardized BSV payment transactions
- Store data on-chain using OP_RETURN
- Lookup identity certificates (BCR-103)
- Check transaction status and confirmations
- Validate transactions against BRC standards

License

[Open BSV License v4](#)

Third-Party Integrations

Metanet Desktop

Bitcoin OS integrates with Metanet Desktop, a desktop wallet application for BSV blockchain:

- **Repository:** <https://github.com/bsv-blockchain/metanet-desktop>
- **License:** Open BSV License
- **Organization:** BSV Blockchain Association
- **Integration:** JSON-API over TCP/3321 for wallet functionality

We extend our gratitude to the BSV Blockchain Association and the Metanet Desktop contributors for providing the wallet infrastructure that enables Bitcoin OS's blockchain features.



Company Information

Built with ❤️ by **The Bitcoin Corporation LTD**

UK Company No. 16735102



Contributing

We welcome contributions! Please see our Contributing Guidelines for details.



Support

- **Issues:** GitHub Issues at [bitcoin-apps-suite/bitcoin-OS](https://github.com/bitcoin-apps-suite/bitcoin-OS)
- **Email:** info@thebitcoinincorporation.com
- **Website:** thebitcoinincorporation.com

"Bitcoin OS - The Future of Computing is Decentralized"
