BeL2 Arbiter One-Click Setup Guide for Elastos Community

Introduction

This guide outlines the process of setting up an Arbiter node in the BeL2 (Bitcoin-Elastos Layer 2) ecosystem. Arbiters play a crucial role in the NBW (New Bretton Woods) system by facilitating cross-chain operations and ensuring network security and stability.

About Arbiter/Arbitrator Nodes

The Arbitrator Network is a key component that enables cross-chain operations and maintains system integrity:

- Decentralized nodes relay data and proofs between different blockchain networks
- Manage redemptions and dispute resolution
- Stake BTC, ELA (Elastos tokens), or BPoS NFTs as collateral to ensure honest behavior

Benefits of Being an Arbiter

As an Arbiter in the BeL2 ecosystem, you'll enjoy:

1. Supporting a growing BeL2 ecosystem of BTCFI dApps in return for set fees
2. Earning rewards from various services, such as:
    - Lending protocols
    - Stablecoin issuance services (including NBW)
    - Cross-chain transaction facilitation
3. Participation in BeL2 governance and decision-making processes
4. Potential future airdrops or additional incentives from the BeL2 community
5. Contributing to the advancement of Bitcoin-based decentralized finance

By becoming an Arbiter, you play a crucial role in maintaining the security, stability, and growth of the BeL2 network while benefiting from its expanding ecosystem.

> **Note:** More details on the incentive program, consensus mechanism, and dispute resolution will be released soon.

Prerequisites

Ensure you have the following before beginning:

1. An Elastos Smart Chain (ESC) Wallet with ELA Tokens
   - Set up by following the [Elastos Smart Chain and Cross-Chain Operation Manual](to) meet staking requirements
2. Metamask Browser Extension (for Arbiter Registration)
3. Bitcoin Wallet (Unisat or OKX Browser Extension)

Video Tutorial

You can also follow along with the video setup guide:

- Step 1: https://youtu.be/6AN-UjhPd8c
- Step 2: https://youtu.be/VYMq8LSK0iI

Step 1: Register as an Arbiter

1. Visit the beta Arbiter Portal: https://arbiter.bel2.org/
2. Connect your Metamask wallet to the portal

3. Configure your Arbiter settings:

Settings

Fee rate (1-100%) ⓘ

```
1
```

Deadline ⓘ

```
2025/01/06
```

Operator   Install MetaMask

Operator BTC address

Operator BTC public key

Staking

Initial staking type

```
Stake ELA
```

Amount

```
1
```

Fee Rate

Set your yearly fee rate as a percentage. Example: 10% fee on a 1000 ELA stake (valued at 3 USD per ELA) results in a 300 USD annual fee.

Deadline

Set the period for your service commitment. Choose wisely, as this affects stake withdrawal and attractiveness to dApps.

Operator Details

Enter your BTC address and BTC public key.

Staking

Choose your staking method:
- Stake ELA (minimum 1 ELA)
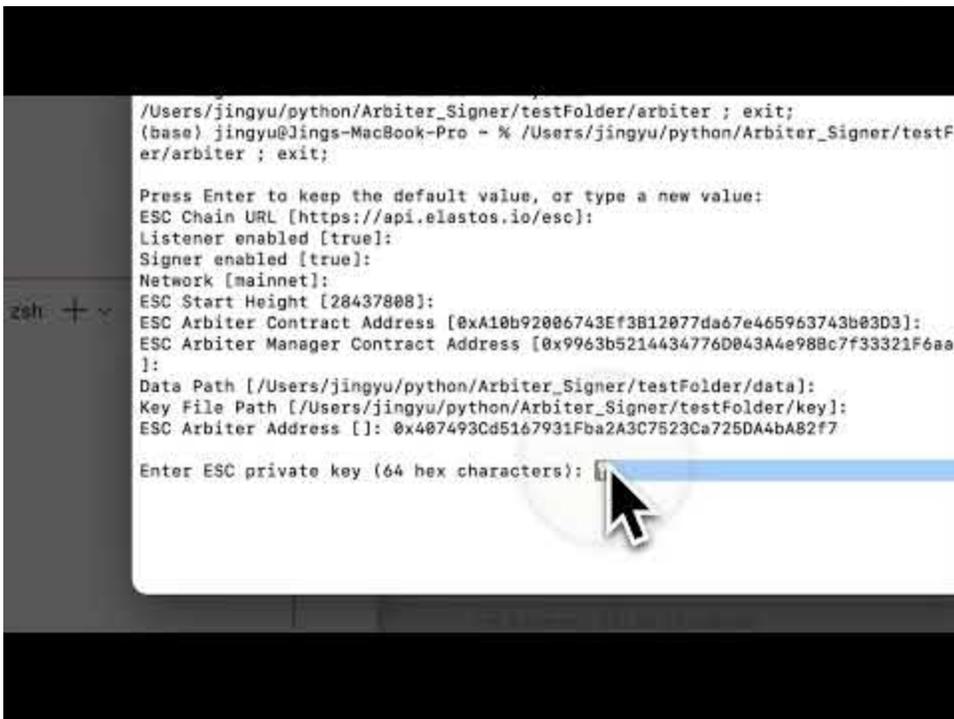- Stake NFTs

4. Complete the registration process

Once registered, proceed to set up your Arbiter Signer Node.

Step 2: Set Up an Arbiter Signer Node

The Arbiter Signer provides signing services for the BeL2 loan arbiter. We now have a simplified one-click setup process available.

Video Tutorial

You can watch a setup demonstration video to see how to configure and run your arbiter node:

One-Click Setup

1. Download the latest release for your operating system from the [Releases](#) section of the community-maintained Arbiter Signer repository.
2. Run the executable to start the interactive setup process:
   - **macOS users**: Due to Apple's security measures, you'll need to:
     1. Right-click (or Control-click) the app
     2. Select "Open" from the context menu

3. Click "Open" in the security dialog that appears
   - **Linux users**: After downloading, you can run directly:
     1. Open terminal in the download directory
     2. Run the application: `./arbiter-signer`
3. Follow the prompts to configure your arbiter node. You'll need to provide:
   - Your arbiter wallet address
   - Your ESC private key
   - Your BTC private key
4. Once configured, the Arbiter Signer will start running automatically.

Important Notes

- Ensure you have a stable internet connection and 24/7 system availability.
- It's recommended to set up a monitoring system to alert you of any downtime.
- Make sure you have sufficient stake as required by the BeL2 protocol.

For advanced setups or production deployments, please refer to the [official repository](#) and its [deployment guide](#).

> **Note:** This community-maintained version focuses on ease of setup. While it strives for reliability, use it at your own discretion. For production deployments, consider using the official repository.

Conclusion

Congratulations on setting up your BeL2 Arbiter node! As an Arbiter, you play a vital role in the NBW ecosystem, facilitating cross-chain operations and ensuring network security and stability.

Stay updated with the latest developments and participate actively in the community. Your contribution is essential to the growth and success of the BeL2 and NBW systems.

For questions or support, please reach out to the BeL2/Elastos community.