# **Migrate to Arbitrum**

This guide provides instructions for the one-time migration from the L1 Ethereum Mainnet to the L2 Arbitrum Mainnet, as per the Livepeer Confluence upgrade.

This guide is designed for node operators who have not yet upgraded to a Livepeer version >=0.5.28, connecting to Arbitrum Mainnet after the LIP-73 block.

### Prerequisites for all chains

• Your connected Ethereum account should have enough ETH to cover gas for the migrate transaction.

If you do not have ETH in your wallet, you can add some using another wallet or an on-ramp so you can buy enough for the migrate transaction.

• You can complete the migration using the Livepeer Explorer.

Alternatively, you may opt to sign a typed data message via livepeer\_cli , instead.

- Ensure you are interacting with the correct contracts. Addresses can be found here.
- If you use a contract account rather than an EOA: You will need to interact directly with the Migrator contract methods following the Contract Wallet Migration guide.

(i) If you are not familiar with this, it may not apply to you.

- Use a go-livepeer release >= 0.5.28 .
- To register your Orchestrator on the destination chain, **bridge some ETH** to pay for the transaction.

### **On Mainnet**

This guide applies to orchestrators who registered on-chain on the Ethereum mainnet prior to February 14th, 2022. It can be used starting on February 14th, 2022 onward.

Once you have successfully completed the migration, this guide is no longer applicable and you will use Arbitrum in lieu of Ethereum for all protocol actions.

Before starting the migration process, you will need to acquire an **RPC url** for Arbitrum:

- Set up an Arbitrum node, or
- Acquire an Arbitrum RPC url using a third-party service (e.g., Alchemy or Infura).

### **On Testnet**

This guide is applicable to orchestrators who registered on-chain on Rinkeby prior to January 24th, 2022.

Note: Once you have successfully completed the migration, this guide is no longer applicable and you will use Arbitrum Rinkeby in lieu of Rinkeby for all protocol actions.

Before starting the migration process, you will need to acquire an **RPC url** for Arbitrum. We recommend using the Offchain Labs public testnet endpoint.

Alternatively, you can:

- Set up an Arbitrum node, or
- Acquire an Arbitrum RPC url using a third-party service,

For example:

- Alchemy, or
- Infura

## **Migrating to Arbitrum**

1. Connect your wallet

If you have not connected a wallet, connect one using the prompt in the upper left-hand corner of the Livepeer Explorer.

The wallet you choose should contain a small amount of ETH to pay for the migrate transaction.

**Note:** You do not have to use the same wallet you use for your orchestrator. However, if you are using a different wallet to submit the transaction, you will still need to access the wallet that you use for your orchestrator so that you can sign a typed data message.

#### For example:

**Connect Wallet** 

Connect To A Wallet	×
MetaMask	X
WalletConnect	~
Coinbase Wallet	Θ
Fortmatic	F
Portis	٢

2. Navigate to the L2 Migration Tool to begin migration to Arbitrum:



3. Sign the migrate transaction:

You can sign to authorize the migration transaction with one of the following:

4a. Sign using a connected wallet.

If you prefer to sign using the wallet that you have connected to the explorer, click "Approve Migration" and approve the transaction using your browser extension.



Address	0×6e4Ab208			
Self stake	10.0 LPT			
Delegated Stake	10.0 LPT			
Earned fees	0.0 ETH			
Approve Migration				
Migration Guide 🦻				
Discord Support Channel 🧷				

4b. Sign using the livepeer\_cli .

If you prefer to sign a typed data message through the livepeer\_cli, connect your wallet to the explorer with any other account. You will be prompted to enter the public address of the orchestrator you wish to migrate.

Note: If you are signing with the CLI and your connected wallet is NOT your orchestrator wallet, the stake amount will not appear until after you enter your Ethereum account address.

65ee916583c1b208
0×6e4Ab208
10.0 LP1
10.0 LPT
0.0 ET⊢

Once you have entered an address, you will see a message to sign and a text entry box for the signature.

• Copy the message provided. Then go into your CLI and select option 19: Sign Typed Data.

What would you like to do? (default = stats) 1. Get node status 2. View protocol parameters 3. List registered orchestrators 4. Invoke "initialize round" 5. Invoke "bond" 6. Invoke "unbond" 7. Invoke "rebond" 8. Invoke "rebond" 8. Invoke "withdraw stake" (LPT) 9. Invoke "withdraw fees" (ETH) 10. Invoke "transfer" (LPT) 11. Invoke "transfer" (LPT) 11. Invoke "transfer" (LPT) 12. Invoke multi-step "become an orchestrator" 13. Set orchestrator config 14. Set maximum Ethereum gas price 15. Set minimum Ethereum gas price 16. Get test LPT 17. Get test ETH 18. Sign a message 19. Sign typed data 20. Vote in a poll	
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20. Vote in a poll >	19. Sign typed data
	20 Vote in a poll
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• Follow the CLI's prompts to generate a signature.

**Note:** For **Windows** users, after pasting the typed data you will need to type **ctrl+Z**, instead of **ctrl+D**.

17. Vote in a poll
> 16
Enter or paste the message to sign:
(press enter followed by CTRL+D when done) $>$ testing
Signature: 0xc328b0a41c06d018c369a2c16871d61ebaa5c7f9a35ed3e8ff096dee03f13897785e34f9c920 9fccecc21a93dc20f66bf91fc3385d9683c5cae57b3c80f95d1b

Paste this message in the provided box and click Continue.



paste the following	ng message.
{"types":{"M	igrateDelegator":[{"name":"l1Addr","type".ac
The CLI will gene with "0x". Paste i	rate a signed message signature. It should begin t here.

- Click Approve Migration to send the transaction to Ethereum. The connected browser wallet will pay gas, but it will use the provided signature.
- 4. View your profile:

Once the **migrate** transaction has been confirmed (this usually takes up to 10 minutes between mainnet and Arbitrum), you should see a link to your profile where you will be able to see your newly claimed balances.

You will see an **Arbiscan** link to the **transaction id** to view the submitted transaction.

5. Restart your Orchestrator, pointing at Arbitrum instead of mainnet as follows:

5a. Find your Arbitrum RPC Url

**Note:** If you prefer to run your own Arbitrum node, you should start it at this time. Otherwise, you should find the Arbitrum RPC Url that you created at the beginning of this guide.

5b. Restart your Orchestrator with an updated configuration

Once you are ready, you should restart your orchestrator using your usual flags, changing only the network and ethUrl.

Error Note: If you're running on the same machine as your mainnet Orchestrator, you may encounter an error:

#### For example:

You were expecting chainID of 4, but got 421611 instead. You may have changed networks without changing network name or datadir .

This indicates your testnet setup is trying to access the same .lpData that it used for mainnet, and it is finding a conflict on chainId.

#### To fix this error:

• Specify a new data directory using the -datadir flag when you start your Orchestrator. Specify only the directory, not the file.

Additionally, you may need to copy your keystore to /.lpData/arbitrum-one-< mainnet / rinkeby >/keystore .

livepeer \	G	∻
<pre>-network arbitrum-one-mainnet # testnet: arbitrum-one-rinkeby</pre>		
-ethUrl <arbitrum rpc="" url=""> # testnet: arbitrum rinkeby RPC url</arbitrum>		

6. Register your service URI and fee structure on Arbitrum using Set orchestrator config :

To receive work, you must register your service URI and fees so that gateways can discover your orchestrator.

6a. Select the following option using livepeer\_cli :

#### 13: Set orchestrator config

6b. Acquire some **arbETH** to pay for the transaction:

• Use the Arbitrum bridge to send Ethereum on Layer 1, to Arbitrum on Layer 2, over the appropriate (i.e. Mainnet or Rinkeby) network.

Once this is complete, you are all set to receive work, rewards, and fees on Arbitrum.

Note: In the future, you'll be prompted to connect to the Livepeer Explorer using Arbitrum, and all future rewards and fees will accrue to Arbitrum rather than Ethereum.