# Testnet (Sandbox) vs. Mainnet (Production)

## Testnet Overview

The Circle Testnet environment, similar to a sandbox, allows you to test the functionality of Circle's Web3 Services. The Circle Testnet is connected to applicable blockchain Testnets (the sandboxed versions of a given blockchain), allowing you to build your application without the risk of testing in a Production environment.

After signing up for a Circle Developer account , you can create Sandbox API keys for deploying on Testnet. Sandbox API keys will have the prefix TEST_API_KEY: , and can only be used for Testnet.

## Upgrading from Testnet to Mainnet

Congratulations on completing your Testnet implementation! Now that you're ready to bring your application to life in Circle's Production environment, you'll need to go through a few more steps.

1. Within your Circle Developer Account, clickUPGRADE TO PROD
2. .
3. You'll be directed to select whether you want to upgrade as an individual or a business.
4. You'll now be presented with the following screens:
5.
    1. Confirm personal information
6.
    1. Pricing and payment
7.
    1. Account security
8.
    1. Accept Terms!
9. Once your information is submitted, you'll receive access to Circle's Production environment within minutes!

Have questions? Reach out to one of our team members at [email protected] .

Continue reading for more information on transitioning your application from Testnet to Mainnet.

## Migrating your code from Testnet to Mainnet

To move your application into Circle's Production environment, you must obtain a Production API Key through the Circle Developer Account. Before being able to access a Production API Key, you will need to follow the steps outlined earlier in this guide . Production API keys will have the prefix "LIVE_API_KEY:", and can only be used for mainnet.

Once you've received your Production API key, you can replace your Sandbox API Key with your Production API Key in your codebase.

## Differences between Testnet and Mainnet

When migrating from the Testnet environment to the Mainnet environment, you should be aware of a couple of key differences:

Blockchain confirmation times may vary between a blockchain's Testnet and Mainnet. You may experience longer transaction times in Production to ensure stability as you handle your users' real-world assets. Make sure you are accounting for Production transaction times when building your application.

Gas Fees will differ on a blockchain's Testnet and Mainnet. The Mainnet is more congested, as it handles real user transactions and interactions. Ensure that the settings you've configured around gas fees in your Sandbox environment are updated to your preferred setting in the Production environment.

Testing : Circle recommends you test your application in both the Testnet and Mainnet environments before it goes live to ensure that you account for all possible variances.

To review which Testnets are connected to which different blockchains, see Supported Blockchains and Currencies .
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