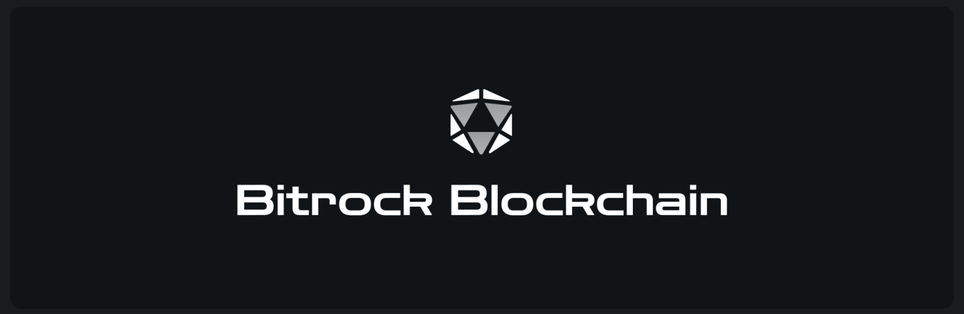


Bitrock Blockchain

The last few years saw a surge in the number of Ethereum layer 2 (side chain) solutions, aiming to address different drawbacks of the Ethereum chain such as speed, scalability, and cost. Many of those side chains have managed to improve certain aspects but not (or sometimes at the expense of) others, and many have not stood the test of time - with lessened long-term sustainability and adoption. This adds to the ongoing scarcity of reliable, robust, and scalable L2 blockchains. On top of all, most of these solutions launched through private sales, large-raise presales, or VC (Venture Capital) backings, and therefore may have started out at fairly high market capitalizations – which alienates a significant portion of the average retail investor demographic (with average capital in the market) since such high starting valuations are typically perceived as not likely to lead to a worthwhile ROI.

To provide a holistic and more comprehensive approach to the latest in L2 solutions, Bitrock stepped in as a novel and innovative Ethereum side chain solution. Having stealth launched in July 2023 with no presale, private sale, or VC backing, not only is Bitrock functionally superior to many other L2 chains on the market, but it also presents itself as a highly viable and currently undervalued investment opportunity with high ROI potential when compared with the valuations its more seasoned peers have achieved over the years.

After rigorous Testnet testing, Bitrock launched with a live Testnet, and released the Mainnet just 3 days later, boasting a highly impressive 2 second block time and near-zero gas fees (~0.000001 GWEI), redefining native chain transaction speed and cost norms. Soon, users will be able to bridge the ERC-20 BROCK to native BROCK through the upcoming chain bridge in partnership with Sphynx labs. In addition, the team is working to soon release an innovative BROCK multichain DEX (swap), where cryptocurrencies can be traded directly on their native chains without the need to use DEX's native to those chains, hold native chain tokens, or pay gas fees in those native tokens. All of the former can be handled through Bitrock's native multichain DEX, and all gas is equalized from other chains and paid in BROCK. Additional Bitrock utilities (chain related, DEX related, and otherwise) are still under development and will be rolled out in due time.

With plenty of prep work done ahead of launch, and a solid track record since launch by a highly competent, motivated, and dedicated team, Bitrock plans to test the limits of what an Ethereum L2 solution can attain in cost-effectiveness, convenience, scalability, and speed.

Next - Developer
Consensus Algorithm →

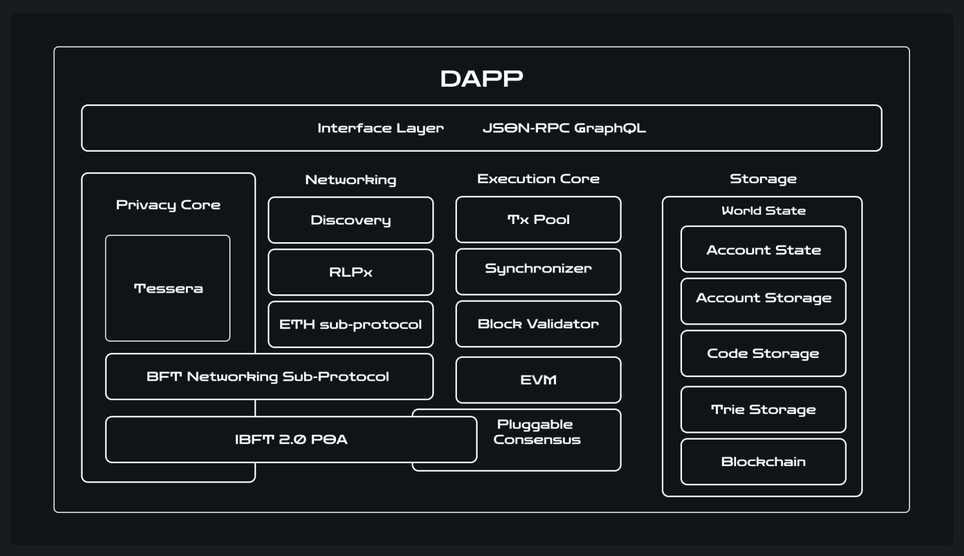
Consensus Algorithm

Bitrock blockchain uses IBFT 2.0 proof of authority (PoA) consensus where energy use is more efficient than proof of work (PoW) networks. In IBFT 2.0 networks, approved accounts, known as validators, validate transactions and blocks. Validators take turns to create the next block. Before inserting the block onto the chain, a super-majority of validators must first sign the block. The validator group will grow over time as additional validators are added. Bitrock offers rewards to approved accounts known as validators of 100000000000000 Wei or 0.0001 BROCK every 2s block validated.

Bitrock also supports Ethereum Virtual Machine (EVM) compatible applications, allowing you to deploy smart contracts or WEB3 Applications compatible with EVM and all Ethereum tools like Metamask, Truffle and others.

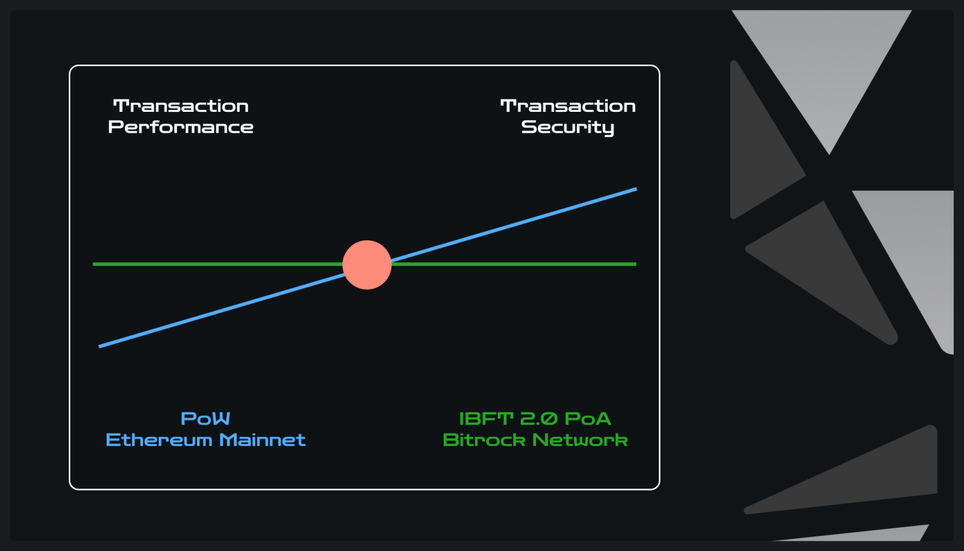
Framework Architecture

The following diagram outlines the high-level architecture of the Network.



The Difference

The following diagram outlines the difference between PoW and IBFT 2.0 PoA in performance scale.



Get Started - Previous
Bitrock Blockchain

Next - Developer
Running Full Node

Last modified 10d ago

Running Full Node

Prerequisites

- **Java JDK - version 19 or higher.**
  Java 17+. You can install Java using `brew install openjdk`. Alternatively, you can manually install the Java JDK.
- Hyperledger Besu Engine.
- 500 GB of disk space and 12 GB RAM is recommended.
- Ubuntu 20.04 or MacOS High Sierra 10.13 or later versions.

Tip before running in Linux:

If synchronizing to Mainnet on Linux or other chains with large data requirements, increase the maximum number of open files allowed using `ulimit`. If the open files limit is not high enough, a `Too many open files` RocksDB exception occurs.

Get Started

Bitrock-Mainnet Genesis File: https://bit-rock.io/mainnetgenesis.json

1. Create Directory

```
mkdir bitrock_node
cd bitrock_node
wget https://bit-rock.io/mainnetgenesis.json
```

2. Create Configuration File

Create a **chain_config.toml** with the following options:

```
#Enode Pointing
bootnodes=
["enode://1fd6bfa1ac606ab3cdbbbacef1b27a1e38b0ac54d5c1a361d07a27211b54b4817aa9b14e596f2
3c7020d246998f5224ae18882b181dad2ee940d774a085eb7bd@206.81.20.253:30303"]

#Bitrock Genesis File
genesis-file="[PATH]/mainnetgenesis.json"

#Data directory
data-path="[PATH]/bitrock_node

#Chain Configuration
rpc-http-enabled=true
rpc-ws-enabled=true
host-allowlist=["*"]
sync-mode=["FULL"]
rpc-http-host=["0.0.0.0"]
rpc-ws-host=["0.0.0.0"]
rpc-http-cors-origins=["all"]

#API Method
rpc-http-api=["ETH","NET","WEB3","ADMIN","IBFT","TXPOOL","DEBUG","TRACE"]
rpc-ws-api=["ETH","NET","WEB3","ADMIN","IBFT","TXPOOL","DEBUG","TRACE"]
```

3. Start Node

```
besu --config-file=chain_config.toml
```

4. Run in a Service System

```
nano /etc/systemd/system/bitrockfullnode.service
```

```
[Unit]
Description= bitrock full node

[Service]
Type=simple
User=root
Restart=always
ExecStart=[PATH]/besu --config-file=[PATH]/chain_config.toml

[Install]
WantedBy=default.target
```

5. Confirm Bitrock Network is Running

```
curl -X POST --data '{"jsonrpc":"2.0","method":"eth_gasPrice","params":[],"id":53}'
http://127.0.0.1:8545
```

Response:

```
{
  "jsonrpc" : "2.0",
  "id" : 53,
  "result" : "0x3e8"
}
```

Request to become a Validator: info@bit-rock.io

← Developer - Previous
Consensus Algorithm

Next - Developer
Connect to Chain →

Connect to Chain

MetaMask can access many more networks other than just the Ethereum mainnet - any EVM-compatible network can be added. The abbreviation RPC stands for Remote Procedure Call, a set of protocols that allow a client (such as MetaMask) to interact with a blockchain.

Bitrock Testnet

Network Name	Bitrock Testnet
Symbol	BROCK
RPC Endpoints	https://testnet.bit-rock.io
Websocket Endpoint	wss://testnet.bit-rock.io/ws/
Chain ID	7771
Block Explorer	https://testnetscan.bit-rock.io
Faucet	https://faucet.bit-rock.io/

Bitrock Mainnet

Network Name	Bitrock Mainnet
Symbol	BROCK
RPC Endpoints	https://connect.bit-rock.io
Websocket Endpoint	wss://connect.bit-rock.io/ws/
Chain ID	7171
Block Explorer	https://scan.bit-rock.io

JSON-RPC Method

```
curl -X POST --data '{"jsonrpc":"2.0","method":"eth_gasPrice","params":[],"id":53}' https://connect.bit-rock.io
```

← Developer - Previous
Running Full Node

Next - Developer
API Method →

Last modified 24d ago

How to Get Bitrock Token

If you are ready to invest in Bitrock, here is a step by step guide to help you get started:

1. Decentralized Exchange & Digital Wallet

Bitrock is an ERC-20 token on the Ethereum blockchain. Any wallet that supports ERC-20 tokens supports Bitrock - including Metamask, Coinbase wallet, etc. Set up a new ERC-20 compatible digital wallet or use your existing one. Once the wallet is open, access the wallet's dApp browser then head to Uniswap.

Copy and paste Bitrock's smart contract address (below) and enter the number of Bitrock tokens you want to buy.

Bitrock Smart Contract

`0xde67d97b8770dC98C746A3FC0093c538666eB493`

Note: You can swap to Bitrock from ERC-20 tokens such as ETH/USDT, but make sure to set aside a certain allocation of ETH for gas fees.

2. Centralized Exchanges

~ Coming Soon.

Developer - Previous
API Method

Next - Tutorial
Bridge ETH<>BROCK

Last modified 12d ago

Bridge ETH<>BROCK

1. Bridge using Sphynx Labs

1. Navigate to **https://thesphynx.co/bridge/1** and connect your wallet to ETH.
2. Select currency: Bitrock (To Chain will auto fill).
3. On your first bridge transaction, approve Bitrock spending first. In Metamask, make sure to select Use Default as custom spending cap.
4. Enter the amount of Bitrock to bridge (or press Max to select your entire balance).
5. Press Next and review your transaction before confirming with your wallet.
6. Wait for the transaction to complete, switch your wallet to Bitrock Mainnet, your native coins will arrive soon!

Watch full tutorial:

Telegram
Telegram

Tutorial - Previous
How to Get Bitrock Token

Next - Tutorial
Smart Contract Deployment

Last modified 6d ago

Smart Contract Deployment

Anyone can build a smart contract application on the Bitrock network. Below is a step-by-step walkthrough on how to deploy a simple smart contract counter using Remix.

Note: Before you start deploying using Remix, make sure you are connected Bitrock network in your Metamask. See the Connect a Chain section for details.

1. What is Remix?

Remix is open-source Ethereum IDE you can use to write, compile and debug Solidity code. As such, Remix can be a hugely important tool in Web3 and dApps development.

You can jump to the Remix text editor https://remix.ethereum.org and copy paste this code below.

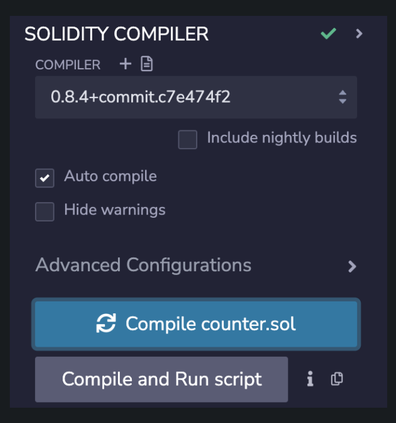
counter.sol

```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.4;

contract TestBitRockSimpleCounter {
    int private count = 0;
    function incrementCounter() public {
        count += 1;
    }
    function decrementCounter() public {
        count -= 1;
    }
    function getCount() public view returns (int) {
        return count;
    }
}
```

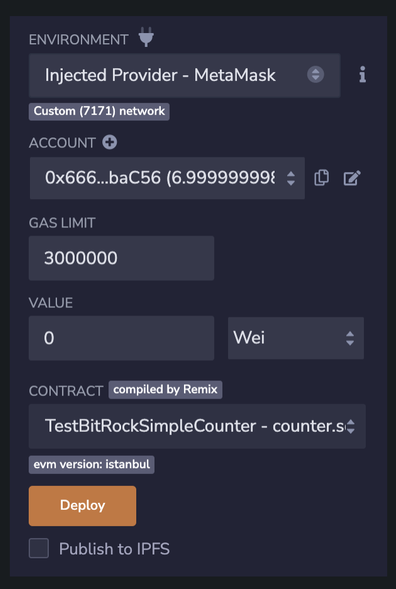
2. Compile Code

After the code is written, compile it using Solidity version based on the code written.



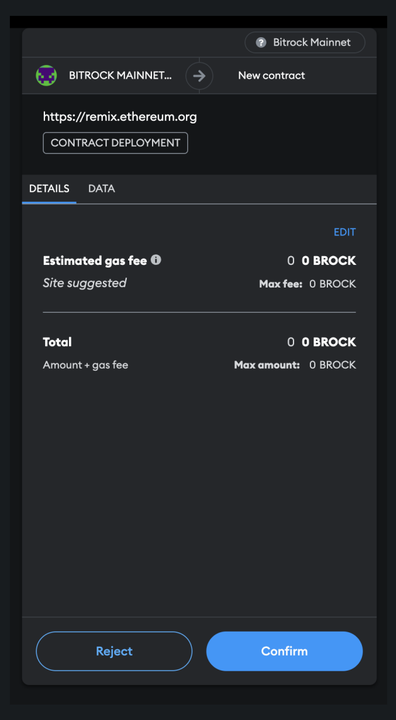
Once the code is compiled, a **green Check** will be shown.

3. Deploy and view on Bitrock Explorer



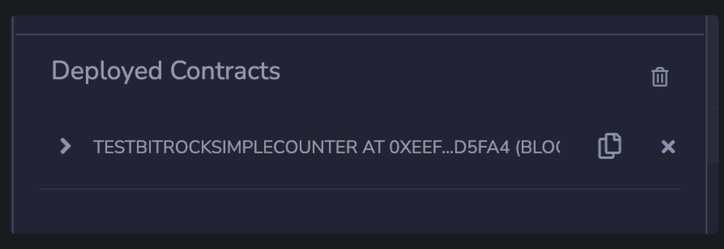
After the code is compiled, it is ready to be deployed on the Bitrock Network. Click the Deploy button and a Metamask confirmation window will pop up.

Note: Bitrock Blockchain smart contract deployment fees are near-zero.



4. The smart contract is ready to be used

After the smart contract is deployed, the contract address can be seen and explored on Bitrock explorer.



Tutorial - Previous
Bridge ETH<>BROCK

Next - Ecosystem & Tools
Earn Bitrock

Last modified 23d ago

Earn Bitrock

Bitrock provides a very lucrative staking opportunity for all token holders with a substantial APY and a lock-up time of only 7 days.

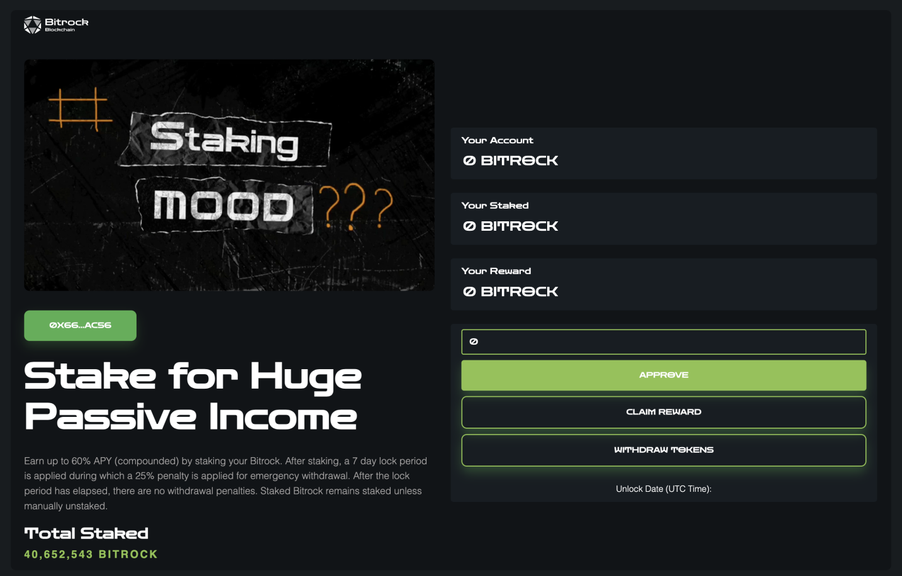
1. Buy Bitrock Token

You can buy Bitrock Token on Ethereum using decentralized exchanges and a digital wallet. See more info.

2. Stake Your Bitrock Token

Ethereum Mainnet | Bitrock Mainnet

Currently, Bitrock staked on the Ethereum network returns an APY of 90% with a 7 day lock-time and flexible reward claims.



Staking rules

- APY: 60%
- Locking Time: 7 Days (UTC Time)
- Emergency Withdraw: 25% Tax
- Claim Reward Time: Flexible.

Tutorial - Previous
Smart Contract Deployment

Next - Ecosystem & Tools
Network Explorer

Last modified 10d ago

Network Explorer

Block explorer is an online tool that indexes and tracks all blockchain transaction activities. All information and data related to blocks, transactions, wallets, contracts, tokens and more can be found here.

Testnet Explorer	https://testnetscan.bit-rock.io/
Mainnet Explorer	https://scan.bit-rock.io/

Ecosystem & Tools - Previous
Earn Bitrock

Next - Ecosystem & Tools
Use the Swap

Last modified 24d ago

Use the Swap

Bitrock Swap/DEX allows you to trade all tokens on the Bitrock Mainnet. It will also include a multichain mechanism (more info. soon) that enables crosschain trading.

Ecosystem & Tools - Previous
Network Explorer

Next - Ecosystem & Tools
Token Builder

Last modified 24d ago

Token Builder

Token Builder is a Bitrock Web3 dApp that helps you create and launch BROCK-20 tokens in just 5 steps.

Ecosystem & Tools - Previous
Use the Swap

Next - Ecosystem & Tools
NFT Marketplace

Last modified 24d ago

NFT Marketplace

Bitrock NFT Marketplace is a marketplace that unites NFT buyers and sellers on 1 platform. All NFTs can be staked with a very rewarding APY.

Ecosystem & Tools - Previous
Token Builder

Last modified 24d ago