

Titan-Goerli L2 Testnet Dev Document

last updated: July 3rd, 2023



Starting July 1st, "Darius" keyword is being deprecated in favor for "Titan Goerli". We will use the new testname convention.

If you see "Darius" on this document or any other places, assume that it really means "Titan Goerli"

Introduction

This document provides a development guide for the Darius L2 testnet. This testnet is based on the pre-Bedrock implementation of the Optimism L2 network and uses the Goerli network as its L1 network. Therefore, many of the development guidelines or principles from the Optimism team can be used as a reference for development.

If you're new to Darius, we recommend checking out the [guide to deploying a basic contract](#). It will familiarize you with the core steps required to deploy a contract to the network. Luckily, Darius (which is a customized codebase of Optimism) is [EVM equivalent](#), so deploying a contract to it is 100% the same as deploying a contract to Ethereum.

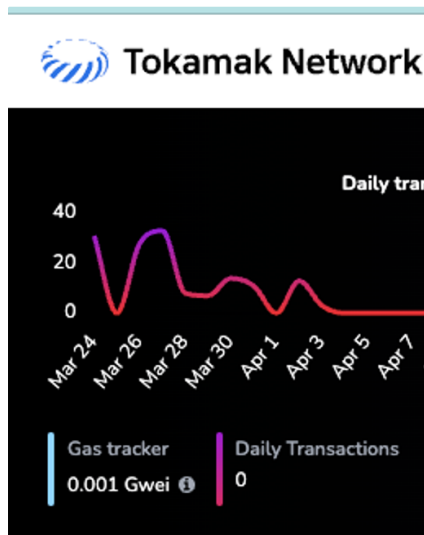
Services



This section lists the services that are available on the Darius L2 Testnet for testing purposes.



The frontend UX/UI is for testing purposes only. **They will not be used on the mainnet.** Note that some of the functions may not work properly (read below for more details).



Darius Explorer

goerli.explorer.tokamak.network

Darius Explorer is a block explorer and analytics platform that provides access to details on any pending or confirmed transactions on the Darius L2 Testnet.^{*}, ^{^^}

Darius Gateway

<https://goerli.gateway.tokamak.network/>

Darius Gateway enables asset transfers between Goerli L1 Testnet and Darius L2 Testnet. It currently supports the deposit/withdrawal of ETH, TON, TOS, USDC, AURA, and LYDA.^{**}, ^{^^^}

Darius Uniswap v3 Fork

app.uniswap.tokamak.network

Darius Uniswap V3 Fork is a version of Uniswap V3 that has been deployed on Darius L2 Testnet. Uniswap is a decentralized exchange (DEX) built on Ethereum that allows traders to swap ERC-20 tokens.^{**}, [^]

^{*} This service is expected to be upgraded when L2 mainnet opens

^{**} This service is expected to be replaced when L2 mainnet opens.

[^] Please note that this version does not support the "collect" and auto router function.

^{^^} Contract verification works with npm 7 or higher and [hardhat-etherscan plugin v3.0.0](#) or higher. Contracts deployed through another contract (ex: contracts generated from a factory contract) cannot be verified at the moment.

^{^^^} Transactions or Document tab is not supported at the moment.

Testing on Darius L2 Testnet



This section provides information about setting network to start development or/and use our services on Darius L2 Testnet.

| Parameter | Value |
|-------------------|---|
| Network Name | Darius |
| Description | Testnet (public) |
| Darius Chain ID | 5050 |
| Goerli Chain ID | 5 |
| Explorer | https://goerli.explorer.tokamak.network |
| HTTP Endpoint | https://goerli.optimism.tokamak.network |
| WS Endpoint | https://goerli.optimism.tokamak.network/ws |
| Withdrawal period | ~ 20 minutes |

1. Developing smart contract on Darius L2 testnet



Note that the Optimism SDK is not fully supported for Darius at the moment. A dedicated SDK will be provided at a later date.

- You can find the tutorial [here](#). This tutorial is designed to guide you through the process of deploying a simple dapp. In addition, it provides you with the opportunity to explore simple cross-domain related actions. By following this tutorial, you will gain a deeper understanding of how to deploy and interact with dapps, as well as how to use cross-domain functionality to improve your dapp's functionality. Whether you are new to dapp development or have some experience, this tutorial is an excellent resource to help you take your skills to the next level.

2. Important contract addresses



This subsection lists deployed contract addresses on Darius L2 and Goerli L1. You can check the addresses on [Darius Explorer](#).

- Monorepo contract addresses

| Contract name | Address |
|-----------------------------------|--|
| L1CrossDomainMessenger | 0x2878373BA3Be0Ef2a93Ba5b3F7210D76cb222e63 |
| L1StandardBridge | 0x7377F3D0F64d7a54Cf367193eb74a052ff8578FD |
| Lib_AddressManager | 0xEFa07e4263D511fC3a7476772e2392efFb1BDb92 |
| StateCommitmentChain | 0xd52E839b21cE302B15f7652Dc44Cb33841450418 |
| CanonicalTransactionChain | 0x1D288952363B14B6BEEFA6A5fB2990203963F399 |
| BondManager | 0x55c16359C5254Ade092DF94C9B858D4810cB2774 |
| ChugSplashDictator | 0x258CEa994F82c0B95394FF483F7fb70E96E20244 |
| ChainStorageContainer-SCC-batches | 0xdEc2F522035581d7d8a527865174E545073A5f4A |
| ChainStorageContainer-CTC-batches | 0x9dDBa463f716b328fa35e8bDdDE9C27DECce18c5 |

- Token Lists

| Token Name | Darius L2 | Goerli L1 | Note |
|------------------------------|--|---|--|
| TON | <u>0x7c6b91D9Be155A6D b01f749217d76fF02A7 227F2</u> | <u>0x68c1F9620aeC7F29 13430aD6daC1bb16D8 444F00</u> | |
| WTON | Not supported | <u>0xe86fCf5213C785AcF 9a8BFfEeDEfA9a2199f 7Da6</u> | |
| TOS | <u>0x50c5725949A6F0c7 2E6C4a641F24049A91 7DB0Cb</u> | <u>0x67F3bE272b1913602 B191B3A68F7C238A2D 81Bb9</u> | |
| USDC | <u>0x713733bda7F5f9C15 fd164242dF4d6292B4 12bAE</u> | <u>0x07865c6e87b9f702 55377e024ace6630c1 eaa37f</u> | |
| WETH (Native) | <u>0x4200000000000000 0000000000000000 00000006</u> | <u>0xB4FBF271143F4FBf7 B91A5ded31805e42b2 208d6</u> | This is the native WETH on Darius |
| WETH (Uniswap v3) | <u>0x04C91015CC8910B0 31F2399E04802b51bf 6582A1</u> | N/A | The current forked Uniswap V3 uses this address for WETH. This will be replaced with native WETH. |
| DOC | <u>0x9e1028F5F1D5eDE5 9748FFceE553250997 6840E0</u> | <u>0x020A7c41212057B2 A880191c07F7c7C7a71 a8b57</u> | |
| AURA | <u>0x3e7eF8f50246f7258 85102E8238CBba33F2 76747</u> | <u>0x80Eea029B5Cdb8A2 15Ae78e20B4fF81607F 44A38</u> | |
| LYDA | <u>0x3bB4445D30AC020 a84c1b5A8A2C6248eb C9779D0</u> | <u>0x51C5E2D3dc8Ee66D ffdb1747dEB20d6b326 E8bF2</u> | |
| USDC | <u>0x9c53338c48181035 D96884946C34ea8181 8F743C</u> | <u>0x07865c6E87B9F702 55377e024ace6630C1 Eaa37F</u> | |
| USDT | <u>0xd1e405F1154BE88a C84f748C1BcE22442B 12309F</u> | <u>0xfad6367E97217cC51 b4cd838Cc086831f81 d38C2</u> | https://faucet.goerli.linea.build/ Goerli USDT used in cross layer transfer |

- Uniswap V3 Liquidity Pool

| Pool Name | Darius L2 | Goerli L1 | Note |
|------------|---|---|---|
| TON / ETH | <u>0x562379E1253e0ca95A05320DB14b3108e5F2773f</u> | (WTON/ETH) <u>0x9EF32Ae2acAF105557DB0E98E68c6CD4f1A1aE63</u> | Darius supports TON/ETH, and Goerli supports WTON/ETH |
| TOS / ETH | <u>0x3760848Dd280F9Ab353A5798B66c37388224c435</u> | <u>0x3B466f5d9b49AEDd65F6124D5986A9F30B1f5442</u> | |
| TON / TOS | <u>0x6E090b1C07f227303326D26963a2389823782CF3</u> | (WTON/TOS) <u>0x8DF54aDA313293E80634f981820969BE7542CEe9</u> | Darius supports TON/TOS, and Goerli supports WTON/TOS |
| AURA / TOS | <u>0xc43B4D505D4D441bac8B26bd068210ECB4376D89</u> | <u>0x7674d91d3D2c75Eef6330F1f58F1cE416Bb386e5</u> | |
| LYDA / TOS | <u>0x53aFc711cE3C1fc69764aAc9565995557970F0Bf</u> | <u>0x5E08aFf63d2B6B80a74d6C3dBC8B36099AF6d11E</u> | |

Titan Testnet (Goerli)