

# Emergency Brakes

## 1.1 GateSeal Committee

Address: [0x8772E3a2D86B9347A2688f9bc1808A6d8917760C](https://etherscan.io/address/0x8772E3a2D86B9347A2688f9bc1808A6d8917760C)

Purpose of the multisig: The GateSeal Committee can trigger GateSeal to pause WithdrawalQueueERC721 (pausing users' withdrawal requests), ValidatorExitBusOracle (pausing NOs withdrawal requests) or both smart contracts for 6 days. The right to pause is one-use only and automatically expires on 1 May 2024.

Quorum: 3/6

Forum topic: [Lido V2 GateSeal Committee](#)

Snapshot: [Voting for approval of new withdrawals mechanism and new modular architecture for Node Operators set](#)

Aragon: [Vote #156](#)

Contracts and Roles:

GateSeal [0x1ad5cb2955940f998081c1ef5f5f00875431aa90](#)

- Sealing Committee

List of signers:

Name Address Verification Public verification [ajbeal](#) [0x5a409567bCa7459b3aC7e6E5a3F1a3C278071b71](#) Sig Hash: [0x848f5174e88b653e9353f5a46c8dec871b2395a06be8b0b29c221c1ab4f43a8b5fc913c091d0389382879c49ff96750a86efd5806f7223797c31ca01868ec23c01](#)  
<https://twitter.com/ajbeal/status/1655876306771365888?s=20> [eboardom](#) [0xA39a62304d8d43B35114ad7bd1258B0E50e139b3](#)  
<https://etherscan.io/verifySig/17877> <https://twitter.com/eboardom/status/1656002911854292993> [michwill](#) [0xFE45baf0F18c207152A807c1b05926583CFE2e4b](#)  
Sig Hash: [0x44fc2bce69486ea826e1aaeb40878f9a8b038d5f0c8bd0ea9038fee7fca553005adfc9d64172cacd2e7f1c11dc7e9b36c0f18916ed731e56ffa89feb95c8ae500](#)  
<https://twitter.com/newmichwill/status/1656597340780625920?s=20> [skozin](#) [0x2CAE3a4D4c513026Ecc6af94A4BA89Df31c8cEA3](#)  
<https://etherscan.io/verifySig/17853> <https://twitter.com/skozin/status/1655873413833998336> [George](#) [0x912e21CdA3D7012146da4Df33309d860a9eb0bEb](#)  
<https://etherscan.io/verifySig/17866> <https://twitter.com/skozin/status/1655873413833998336> [kadmil](#) [0x9A3f38AF97b791C85c043D46a64f56f87E0283D4](#)  
<https://etherscan.io/verifySig/17851> [https://twitter.com/kadmil\\_eth/status/1655865828544266242](https://twitter.com/kadmil_eth/status/1655865828544266242)

## 1.2 Emergency Brakes: Ethereum

Address: [0x73b047fe6337183A454c5217241D780a932777bD](https://etherscan.io/address/0x73b047fe6337183A454c5217241D780a932777bD)

Purpose of the multisig: The multisig is used to disable deposits & withdrawals for wstETH bridging to Optimism and Arbitrum in case of an emergency on Ethereum mainnet or L2, and can pause Easy Track pipeline.

Quorum: 3/5

Forum topics: [Emergency Brakes MS for Easy Tracks](#) [Emergency Brakes MS for L2 \(Upgrade\)](#)

Snapshots: [Release Easy Track](#) [Emergency Brakes multisig upgrade](#)

Contracts and Roles :

Easy Track [0xF0211b7660680B49De1A7E9f25C65660F0a13Fea](#)

- PAUSE\_ROLE

Arbitrum L1 ERC20 Token Gateway [0x0F25c1DC2a9922304f2eac71DCa9B07E310e8E5a](#)

- WITHDRAWALS\_DISABLE\_ROLE,
- DEPOSITS\_DISABLE\_ROLE.

Optimism L1 ERC20 Token Bridge [0x76943C0D61395d8F2edF9060e1533529cAe05dE6](#)

- WITHDRAWALS\_DISABLE\_ROLE,
- DEPOSITS\_DISABLE\_ROLE

List of signers:

Name Address Verification Public verification [psirex](#) [0x2a61d3ba5030Ef471C74f612962c7367ECa3a62d](#) - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [TheDZon](#) [0x59f8d74fe49d5e8eac069e3baf07eb4b614bd5a7](#) <https://etherscan.io/verifySig/23795> <https://research.lido.fi/t/emergency-brakes-signer-rotation/5286/2> [kadmil](#) [0x6f5c9B92DC47C89155930E708fBc305b55A5519A](#) - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [ujenit](#) [0xdd19274b614b5ecAc493Bc43C380ef6B8dfB56c](#) - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [folkyatina](#) [0xCFFe0F3B089e46D8212408Ba061c425776E64322](#) - [https://twitter.com/folkyatina/status/1550112058003169284?s=20&t=9RHqr47D6r\\_5Vin6SrU5Qw](https://twitter.com/folkyatina/status/1550112058003169284?s=20&t=9RHqr47D6r_5Vin6SrU5Qw)

## 1.3 Emergency Brakes: Optimism

Address: oeth: [0x4Cf8fE0A4c2539F7EFDD2047d8A5D46F14613088](#)

Purpose of the multisig: The multisig is used to disable deposits or withdrawals or both deposits and withdrawals for wstETH token bridge on Optimism side in case of emergency.

Quorum: 3/5

Forum topics: [Emergency Brakes MS for L2 \(Upgrade\)](#) [First launches of Lido on L2](#)

Snapshot: [Emergency Brakes multi-sig upgrade](#)

Contracts and Roles:

L2 ERC20 Token Bridge oeth:[0x8E01013243a96601a86eb3153F0d9Fa4fbFb6957](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608)

- WITHDRAWALS\_DISABLE\_ROLE
- DEPOSITS\_DISABLE\_ROLE

List of signers:

Name Address Verification Public verification [psirex](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608) 0x2a61d3ba5030Ef471C74f612962c7367ECa3a62d - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [TheDZon](https://etherscan.io/verifySig/23795) 0x59f8d74fe49d5e9eac069e3baf07eb4b614bd5a7 <https://etherscan.io/verifySig/23795> <https://research.lido.fi/t/emergency-brakes-signer-rotation/5286/2> [kadmil](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608) 0x6f5c9B92DC47C89155930E708fBc305b55A5519A - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [ujenit](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608) 0xdd19274b614b5ecAcf493Bc43C380ef6B8dfB56c - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [folkylatina](https://twitter.com/folkylatina/status/1550112058003169284?s=20&t=9RHqr47D6r_5Vin6SrU5Qw) 0xCfFE0F3B089e46D8212408Ba061c425776E64322 - [https://twitter.com/folkylatina/status/1550112058003169284?s=20&t=9RHqr47D6r\\_5Vin6SrU5Qw](https://twitter.com/folkylatina/status/1550112058003169284?s=20&t=9RHqr47D6r_5Vin6SrU5Qw)

## 1.4 Emergency Brakes: Arbitrum

Address: arb1:[0xfDCf209A213a0b3C403d543F87E74FCbcA11de34](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608)

Purpose of the multisig: The multisig is used to disable deposits or withdrawals or both deposits and withdrawals for wstETH token bridge on Arbitrum side in case of an emergency.

Quorum: 3/5

Forum topic: [First launches of Lido on L2](#)

Snapshot: [Emergency Brakes multisig upgrade](#)

Contracts and Roles:

L2 ERC20 Token Gateway arb1:[0x07D4692291B9E30E326fd31706f686f83f331B82](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608)

- WITHDRAWALS\_DISABLE\_ROLE
- DEPOSITS\_DISABLE\_ROLE

List of signers:

Name Address Verification Public verification [psirex](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608) 0x2a61d3ba5030Ef471C74f612962c7367ECa3a62d - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [TheDZon](https://etherscan.io/verifySig/23795) 0x59f8d74fe49d5e9eac069e3baf07eb4b614bd5a7 <https://etherscan.io/verifySig/23795> <https://research.lido.fi/t/emergency-brakes-signer-rotation/5286/2> [kadmil](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608) 0x6f5c9B92DC47C89155930E708fBc305b55A5519A - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [ujenit](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608) 0xdd19274b614b5ecAcf493Bc43C380ef6B8dfB56c - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [folkylatina](https://twitter.com/folkylatina/status/1550112058003169284?s=20&t=9RHqr47D6r_5Vin6SrU5Qw) 0xCfFE0F3B089e46D8212408Ba061c425776E64322 - [https://twitter.com/folkylatina/status/1550112058003169284?s=20&t=9RHqr47D6r\\_5Vin6SrU5Qw](https://twitter.com/folkylatina/status/1550112058003169284?s=20&t=9RHqr47D6r_5Vin6SrU5Qw)

## 1.5 Emergency Brakes: Base

Address: base:[0x0F9A0e7071B7B21bc7a8514DA2cd251bc1FF0725](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608)

Purpose of the multisig: The multisig is used to disable deposits or withdrawals or both deposits and withdrawals for wstETH token bridge on Base side in case of emergency.

Quorum: 3/5

Forum topics: [wstETH Deployment to Base and Ownership Acceptance by Lido DAO](#)

Snapshot: [wstETH Deployment to Base and Ownership Acceptance by Lido DAO](#)

Contracts and Roles:

L2ERC20TokenBridge: base:[0xac9D11cD4D7eF6e54F14643a393F68Ca014287AB](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608)

- WITHDRAWALS\_DISABLE\_ROLE
- DEPOSITS\_DISABLE\_ROLE

List of signers:

Name Address Verification Public verification [psirex](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608) 0x2a61d3ba5030Ef471C74f612962c7367ECa3a62d - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [TheDZon](https://etherscan.io/verifySig/23795) 0x59f8d74fe49d5e9eac069e3baf07eb4b614bd5a7 <https://etherscan.io/verifySig/23795> <https://research.lido.fi/t/emergency-brakes-signer-rotation/5286/2> [kadmil](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608) 0x6f5c9B92DC47C89155930E708fBc305b55A5519A - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [ujenit](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608) 0xdd19274b614b5ecAcf493Bc43C380ef6B8dfB56c - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [folkylatina](https://twitter.com/folkylatina/status/1550112058003169284?s=20&t=9RHqr47D6r_5Vin6SrU5Qw) 0xCfFE0F3B089e46D8212408Ba061c425776E64322 - [https://twitter.com/folkylatina/status/1550112058003169284?s=20&t=9RHqr47D6r\\_5Vin6SrU5Qw](https://twitter.com/folkylatina/status/1550112058003169284?s=20&t=9RHqr47D6r_5Vin6SrU5Qw)

## 1.6 Emergency Brakes: Mantle

Address: mantle:[0xa8579D42E34398267dE16e6eeeCdb7ED0EFF953C](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608)

Purpose of the multisig: The multisig is used to disable deposits or withdrawals or both deposits and withdrawals for wstETH token bridge on Mantle side in case of emergency.

Quorum: 3/5

Forum topics: [wstETH Deployment on Mantle](#)

Snapshot: [wstETH Deployment on Mantle](#)

Contracts and Roles:

L2ERC20TokenBridge: mantle:[0x9c46560D6209743968cC24150893631A39AfDe4d](https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608)

- WITHDRAWALS\_DISABLE\_ROLE
- DEPOSITS\_DISABLE\_ROLE

List of signers:

Name Address Verification Public verification [psirex](#) 0x2a61d3ba5030Ef471C74f612962c7367ECa3a62d - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [TheDZon](#) 0x59f8d74fe49d5e9eac069e3baf07eb4b614bd5a7 <https://etherscan.io/verifySig/23795> <https://research.lido.fi/t/emergency-brakes-signer-rotation/5286/2> [kadmil](#) 0x6f5c9B92DC47C89155930E708fBc305b55A5519A - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [ujenjt](#) 0xdd19274b614b5ecAcf493Bc43C380ef6B8dfB56c - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [folkyatina](#) 0xCFfE0F3B089e46D8212408Ba061c425776E64322 - [https://twitter.com/folkyatina/status/1550112058003169284?s=20&t=9RHqr47D6r\\_5Vin6SrU5Qw](https://twitter.com/folkyatina/status/1550112058003169284?s=20&t=9RHqr47D6r_5Vin6SrU5Qw)

## 1.7 Emergency Brakes: zkSync

Address: zksync: [0x0D7F0A811978B3B62CbfF4EF6149B5909EAcfE94](#)

Purpose of the multisig: The multisig is used to disable deposits or withdrawals or both deposits and withdrawals for wstETH token bridge on zkSync side in case of emergency.

Quorum: 3/5

Forum topics: [wstETH Deployment on zkSync](#)

Snapshot: [wstETH Deployment on zkSync](#)

Contracts and Roles:

L2ERC20TokenBridge: zksync: [0xE1D6A50E7101c8f8db77352897Ee3f1AC53f782B](#)

- WITHDRAWALS\_DISABLE\_ROLE
- DEPOSITS\_DISABLE\_ROLE

List of signers:

Name Address Verification Public verification [psirex](#) 0x2a61d3ba5030Ef471C74f612962c7367ECa3a62d - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [TheDZon](#) 0x59f8d74fe49d5e9eac069e3baf07eb4b614bd5a7 <https://etherscan.io/verifySig/23795> <https://research.lido.fi/t/emergency-brakes-signer-rotation/5286/2> [kadmil](#) 0x6f5c9B92DC47C89155930E708fBc305b55A5519A - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [ujenjt](#) 0xdd19274b614b5ecAcf493Bc43C380ef6B8dfB56c - <https://research.lido.fi/t/emergency-brakes-multi-sig-upgrade/2608> [folkyatina](#) 0xCFfE0F3B089e46D8212408Ba061c425776E64322 - [https://twitter.com/folkyatina/status/1550112058003169284?s=20&t=9RHqr47D6r\\_5Vin6SrU5Qw](https://twitter.com/folkyatina/status/1550112058003169284?s=20&t=9RHqr47D6r_5Vin6SrU5Qw) [Edit this page](#) [Previous](#) [Sepolia](#) [Next](#) [Committees](#)