



TechRate
AUDIT COMPANY

Smart Contract Security Audit

Audit Details



Audited project

EverETH



Deployer address

0xa0d7c61e0cf23ad68813f0ea50fa6d57cff28252



Client contacts:

EverETH team



Blockchain

Binance Smart Chain



Project website:

EverETH.net

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

Background

TechRate was commissioned by EverETH to perform an audit of smart contracts:

<https://bscscan.com/address/0x16dcc0ec78e91e868dca64be86aec62bf7c61037#code>

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

Contracts Details

Token contract details for 01.09.2021

Contract name	EverETH
Contract address	0x16dCc0eC78E91e868DCa64bE86aeC62bf7C61037
Total supply	1,000,000,000,000,000
Token ticker	EverETH
Decimals	9
Token holders	1,982
Transactions count	12,065
Top 100 holders dominance	95.74%
Dividend token	0x2170ed0880ac9a755fd29b2688956bd959f933f8
Total fees	15
Rewards fee	8
Uniswap V2 pair	0x7f5a011b3e0a0f8824f54059654ac52e7a3e47b9
Contract deployer address	0xa0d7c61e0cf23ad68813f0ea50fa6d57cff28252
Contract's current owner address	0xa0d7c61e0cf23ad68813f0ea50fa6d57cff28252

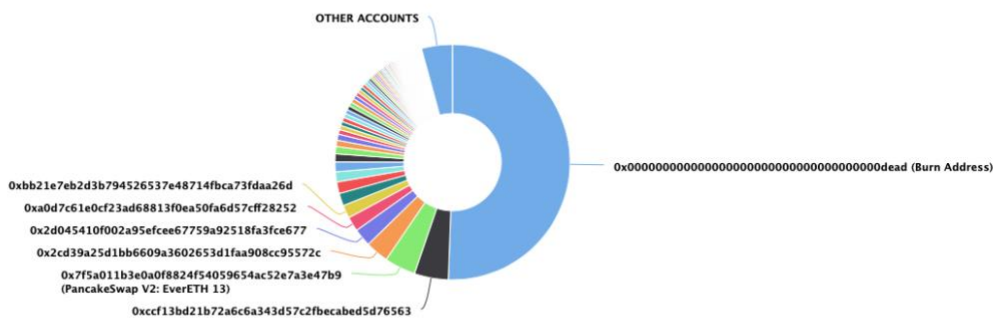
EverETH Token Distribution

The top 100 holders collectively own 95.74% (957,443,498,165,684.00 Tokens) of EverETH

Token Total Supply: 1,000,000,000,000.00 Token | Total Token Holders: 1,982

EverETH Top 100 Token Holders

Source: BscScan.com



(A total of 957,443,498,165,684.00 tokens held by the top 100 accounts from the total supply of 1,000,000,000,000.00 token)

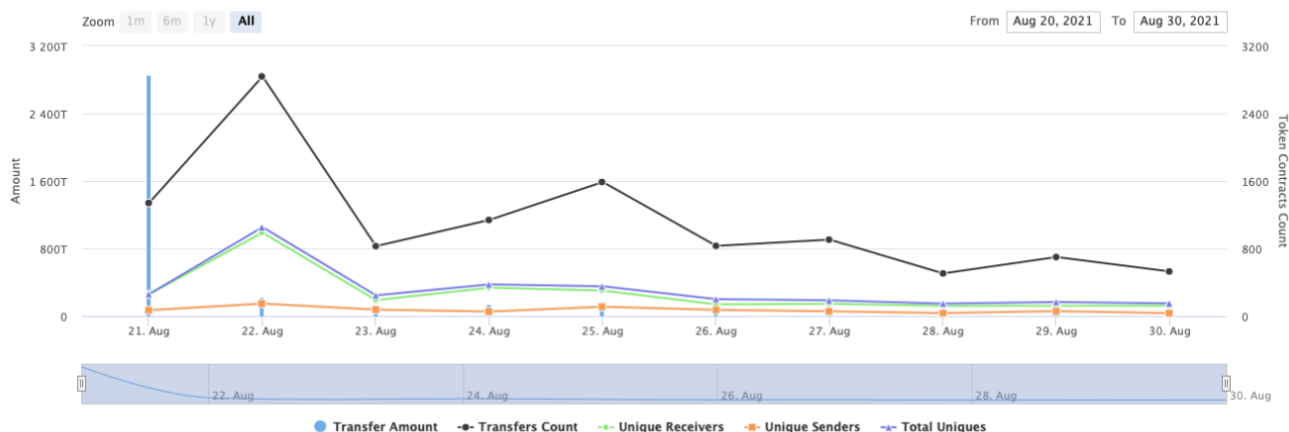
EverETH Contract Interaction Details

Time Series: Token Contract Overview

Sat 21, Aug 2021 - Mon 30, Aug 2021

Token Contract 0x16dcc0ec78e91e868dca64be86aec62bf7c61037 (EverETH)

Source: BscScan.com



EverETH Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	Burn Address	505,763,199,999,999	50.5763%
2	0xccf13bd21b72a6c6a343d57c2fbecabed5d76563	46,860,210,801,292.778048929	4.6860%
3	📄 PancakeSwap V2: EverETH 13	42,774,764,956,611.213373496	4.2775%
4	📄 0x2cd39a25d1bb6609a3602653d1faa908cc95572c	31,772,172,000,000.9990733	3.1772%
5	📄 0x2d045410f002a95efcee67759a92518fa3fce677	24,714,522,108,849.704718607	2.4715%
6	0xa0d7c61e0cf23ad68813f0ea50fa6d57cff28252	20,000,000,000,000	2.0000%
7	0xbb21e7eb2d3b794526537e48714fbca73fdaa26d	18,002,901,407,678.147534684	1.8003%
8	0x2ac69550e0a60e9091ca91ad2df67f63bd3131b0	17,143,086,996,644.800687957	1.7143%
9	📄 0x3e85818de9647308a72fa60f590db1d27f9d5f03	15,993,200,000,000.000036	1.5993%
10	0xa4c953321fa0a09ba6a87f2ac3690f6a6451f655	13,893,326,000,002.55	1.3893%



Contract functions details

- + [Lib] SafeMathUint
 - [Int] toInt256Safe
- + [Lib] SafeMathInt
 - [Int] mul
 - [Int] div
 - [Int] sub
 - [Int] add
 - [Int] abs
 - [Int] toUint256Safe
- + [Lib] SafeMath
 - [Int] add
 - [Int] sub
 - [Int] sub
 - [Int] mul
 - [Int] div
 - [Int] div
 - [Int] mod
 - [Int] mod
- + Ownable (Context)
 - [Pub] <Constructor> #
 - [Pub] owner
 - [Pub] renounceOwnership #
 - modifiers: onlyOwner
 - [Pub] transferOwnership #
 - modifiers: onlyOwner
- + [Int] IUniswapV2Router01
 - [Ext] factory
 - [Ext] WETH
 - [Ext] addLiquidity #
 - [Ext] addLiquidityETH (\$)
 - [Ext] removeLiquidity #
 - [Ext] removeLiquidityETH #
 - [Ext] removeLiquidityWithPermit #
 - [Ext] removeLiquidityETHWithPermit #
 - [Ext] swapExactTokensForTokens #
 - [Ext] swapTokensForExactTokens #
 - [Ext] swapExactETHForTokens (\$)
 - [Ext] swapTokensForExactETH #
 - [Ext] swapExactTokensForETH #
 - [Ext] swapETHForExactTokens (\$)
 - [Ext] quote
 - [Ext] getAmountOut
 - [Ext] getAmountIn
 - [Ext] getAmountsOut
 - [Ext] getAmountsIn
- + [Int] IUniswapV2Router02 (IUniswapV2Router01)

- [Ext] removeLiquidityETHSupportingFeeOnTransferTokens #
- [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens #
- [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
- [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens (\$)
- [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #

+ [Int] IUniswapV2Pair

- [Ext] name
- [Ext] symbol
- [Ext] decimals
- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] allowance
- [Ext] approve #
- [Ext] transfer #
- [Ext] transferFrom #
- [Ext] DOMAIN_SEPARATOR
- [Ext] PERMIT_TYPEHASH
- [Ext] nonces
- [Ext] permit #
- [Ext] MINIMUM_LIQUIDITY
- [Ext] factory
- [Ext] token0
- [Ext] token1
- [Ext] getReserves
- [Ext] price0CumulativeLast
- [Ext] price1CumulativeLast
- [Ext] kLast
- [Ext] mint #
- [Ext] burn #
- [Ext] swap #
- [Ext] skim #
- [Ext] sync #
- [Ext] initialize #

+ [Int] IUniswapV2Factory

- [Ext] feeTo
- [Ext] feeToSetter
- [Ext] getPair
- [Ext] allPairs
- [Ext] allPairsLength
- [Ext] createPair #
- [Ext] setFeeTo #
- [Ext] setFeeToSetter #

+ [Lib] IterableMapping

- [Pub] get
- [Pub] getIndexOfKey
- [Pub] getKeyAtIndex
- [Pub] size
- [Pub] set #
- [Pub] remove #

+ [Int] IERC20Metadata (IERC20)

- [Ext] name

- [Ext] symbol
- [Ext] decimals

+ [Int] IERC20

- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

+ ERC20 (Context, IERC20, IERC20Metadata)

- [Pub] <Constructor> #
- [Pub] name
- [Pub] symbol
- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] allowance
- [Pub] approve #
- [Pub] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Int] _transfer #
- [Int] _mint #
- [Int] _burn #
- [Int] _approve #
- [Int] _beforeTokenTransfer #

+ [Int] DividendPayingTokenOptionalInterface

- [Ext] withdrawableDividendOf
- [Ext] withdrawnDividendOf
- [Ext] accumulativeDividendOf

+ [Int] DividendPayingTokenInterface

- [Ext] dividendOf
- [Ext] withdrawDividend #

+ DividendPayingToken (ERC20, Ownable, DividendPayingTokenInterface, DividendPayingTokenOptionalInterface)

- [Pub] <Constructor> #
 - modifiers: ERC20
- [Pub] distributeEthereumDividends #
 - modifiers: onlyOwner
- [Pub] withdrawDividend #
- [Int] _withdrawDividendOfUser #
- [Pub] dividendOf
- [Pub] withdrawableDividendOf
- [Pub] withdrawnDividendOf
- [Pub] accumulativeDividendOf
- [Int] _transfer #
- [Int] _mint #
- [Int] _burn #
- [Int] _setBalance #

+ Context

- [Int] _msgSender
- [Int] _msgData

+ EverETH (ERC20, Ownable)

- [Pub] <Constructor> #
 - modifiers: ERC20
- [Ext] <Fallback> (\$)
- [Pub] updateDividendTracker #
 - modifiers: onlyOwner
- [Pub] updateUniswapV2Router #
 - modifiers: onlyOwner
- [Pub] excludeFromFees #
 - modifiers: onlyOwner
- [Pub] excludeMultipleAccountsFromFees #
 - modifiers: onlyOwner
- [Ext] setBuyBackWallet #
 - modifiers: onlyOwner
- [Ext] setEthereumRewardsFee #
 - modifiers: onlyOwner
- [Ext] setLiquiditFee #
 - modifiers: onlyOwner
- [Ext] setBuyBackFee #
 - modifiers: onlyOwner
- [Pub] setAutomatedMarketMakerPair #
 - modifiers: onlyOwner
- [Prv] _setAutomatedMarketMakerPair #
- [Pub] updateGasForProcessing #
 - modifiers: onlyOwner
- [Ext] updateClaimWait #
 - modifiers: onlyOwner
- [Ext] getClaimWait
- [Ext] getTotalDividendsDistributed
- [Pub] isExcludedFromFees
- [Pub] withdrawableDividendOf
- [Pub] dividendTokenBalanceOf
- [Ext] excludeFromDividends #
 - modifiers: onlyOwner
- [Ext] getAccountDividendsInfo
- [Ext] getAccountDividendsInfoAtIndex
- [Ext] processDividendTracker #
- [Ext] claim #
- [Ext] getLastProcessedIndex
- [Ext] getNumberOfDividendTokenHolders
- [Int] _transfer #
- [Prv] swapAndSendToFee #
- [Prv] swapAndLiquify #
- [Prv] swapTokensForEth #
- [Prv] swapTokensForEthereum #
- [Prv] addLiquidity #
- [Prv] swapAndSendDividends #

+ EverETHDividendTracker (Ownable, DividendPayingToken)

- [Pub] <Constructor> #

- modifiers: DividendPayingToken
- [Int] _transfer #
- [Pub] withdrawDividend #
- [Ext] excludeFromDividends #
 - modifiers: onlyOwner
- [Ext] updateClaimWait #
 - modifiers: onlyOwner
- [Ext] getLastProcessedIndex
- [Ext] getNumberOfTokenHolders
- [Pub] getAccount
- [Pub] getAccountAtIndex
- [Prv] canAutoClaim
- [Ext] setBalance #
 - modifiers: onlyOwner
- [Pub] process #
- [Pub] processAccount #
 - modifiers: onlyOwner

(\$) = payable function

= non-constant function

Issues Checking Status

Issue description		Checking status
1.	Compiler errors.	Passed
2.	Race conditions and Reentrancy. Cross-function race conditions.	Passed
3.	Possible delays in data delivery.	Passed
4.	Oracle calls.	Passed
5.	Front running.	Passed
6.	Timestamp dependence.	Passed
7.	Integer Overflow and Underflow.	Passed
8.	DoS with Revert.	Passed
9.	DoS with block gas limit.	Low issues
10.	Methods execution permissions.	Passed
11.	Economy model of the contract.	Passed
12.	The impact of the exchange rate on the logic.	Passed
13.	Private user data leaks.	Passed
14.	Malicious Event log.	Passed
15.	Scoping and Declarations.	Passed
16.	Uninitialized storage pointers.	Passed
17.	Arithmetic accuracy.	Passed
18.	Design Logic.	Passed
19.	Cross-function race conditions.	Passed
20.	Safe Open Zeppelin contracts implementation and usage.	Passed
21.	Fallback function security.	Passed

Security Issues

✓ High Severity Issues

No high severity issues found.

✓ Medium Severity Issues

No medium severity issues found.

✓ Low Severity Issues

1. Out of gas

Issue:

- The function `excludeMultipleAccountsFromFees()` uses the loop to exclude multiple accounts from fees. Function will be aborted with `OUT_OF_GAS` exception if there will be a long addresses list.

Recommendation:

Be careful about accounts array length.

Notes:

- Owner can change dividend tracker that could be not audited and some functions may work in different ways.

Owner privileges (In the period when the owner is not renounced)

- Owner can change dividend tracker.
- Owner can change Uniswap router address.
- Owner can exclude from the fees.
- Owner can change Buyback wallet.
- Owner can exclude and include addresses in `automatedMarketMakerPairs` array.
- Owner can change Ethereum rewards, buyback, liquidity fee.
- Owner can change gas for processing.
- Owner can update `claimWait` value.
- Owner can change marketing wallet.
- Owner can exclude from dividends.

Conclusion

Smart contracts contain low severity issues! Liquidity pair contract's security is not checked due to out of scope. The further transfers and operations with the funds raise are not related to this particular contract.

Liquidity locking details are provided by the team:

https://dxsale.app/app/v2_9/dxlockview?id=2794&add=0&type=lpdefi&chain=BSC

TechRate note:

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.



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