HackSafe

Smart Contract Security Audit Report

Kind Ads Token

September 2022

Security Status

★ ★ ★ ★ ⯪

www.hacksafe.io

Audit Details

Audited project
Kind Ads Token

Deployer address
0x861cdE8a65B1c3f762b39Ec01Fa3c352FbDC12EB

Client contacts
Kind Ads Token Team

Blockchain
Ethereum

Website
https://kindads.io/

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.

Procedure

Step 1 - In-Depth Manual Review

Manual line-by-line code reviews to ensure the logic behind each function is sound and safe from various attack vectors. This is the most important and lengthy portion of the audit process (as automated tools often cannot find the nuances that lead to exploits such as flash loan attacks).

Step 2 - Automated Testing

Simulation of a variety of interactions with your Smart Contract on a test blockchain leveraging a combination of automated test tools and manual testing to determine if any security vulnerabilities exist.

Step 3 – Leadership Review

The engineers assigned to the audit will schedule meetings with our leadership team to review the contracts, any comments or findings, and ask questions to further apply adversarial thinking to discuss less common attack vectors.

Step 4 - Resolution of Issues

Consulting with the team to provide our recommendations to ensure the code's security and optimize its gas efficiency, if possible. We assist project team's in resolving any outstanding issues or implementing our recommendations.

Step 5 - Published Audit Report

Boiling down results and findings into an easy-to-read report tailored to the project. Our audit reports highlight resolved issues and any risks that exist to the project or its users, along with any remaining suggested remediation measures. Diagrams are included at the end of each report to help users understand the interactions which occur within the project.

Background

HackSafe was commissioned by Kind Ads Token to perform an audit of smart contracts:

- https://etherscan.io/token/0x4618519de4c304f3444ffa7f812dddc2971cc688#code

The purpose of the audit was to achieve the

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

The information in this report should be 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.

Contract Details

Token contract details for 03.09.2022

Token Type	: ERC20
Contract name	: KindAdsToken
Contract address	: 0x4618519de4C304F3444ffa7f812dddC2971cc688
Compiler version	: v0.4.24+commit.e67f0147
Total supply	: 61,000,000
Token Ticker	: KIND
Decimals	: 8
Token Holders	: 4,812
Transactions count	: 6,077
Contract deployer address	: 0x861cdE8a65B1c3f762b39Ec01Fa3c352FbDC12EB
Owner address	: 0x861cde8a65b1c3f762b39ec01fa3c352fbdc12eb

Social profiles

Twitter profile	: https://twitter.com/kindadsnetwork
Coinmarketcap Profile	: https://coinmarketcap.com/currencies/kind-ads-token/
Coingecko profile	: https://www.coingecko.com/en/coins/kind-ads-token/
Telegram profile	: https://t.me/kindads
Facebook profile	: https://facebook.com/Kind-Ads-248230619068936
Github profile	: https://github.com/kindads/platform

Audit Summary

According to the standard audit assessment, Customer`s solidity smart contracts are “Secure”. This token contract does contain owner control, which do not make it fully decentralized as owner does have control over smart contract.

Insecure	Poor secured	Secure	Well-secured

You are here 

We used various tools like Slither, Mythril and Remix IDE. At the same time this finding is based on critical analysis of the manual audit. All issues found during automated analysis were manually reviewed and applicable vulnerabilities are presented in the issues checking status.

We found 0 critical, 0 high, 0 medium and 2 low and some very low-level issues. These issues are not critical ones.

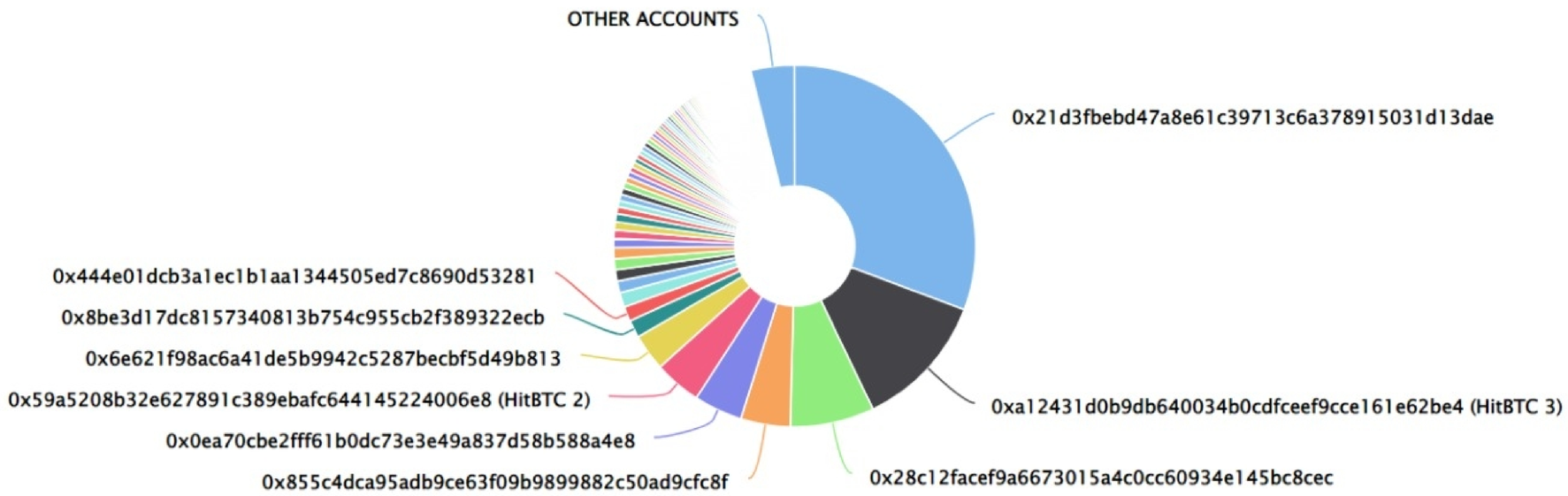
Kind Ads Token Distribution

The top 100 holders collectively own 96.09% (58,616,310.92 Tokens) of Kind Ads Token

Token Total Supply: 61,000,000.00 Token | Total Token Holders: 4,812

Kind Ads Token Top 100 Token Holders

Source: Etherscan.io



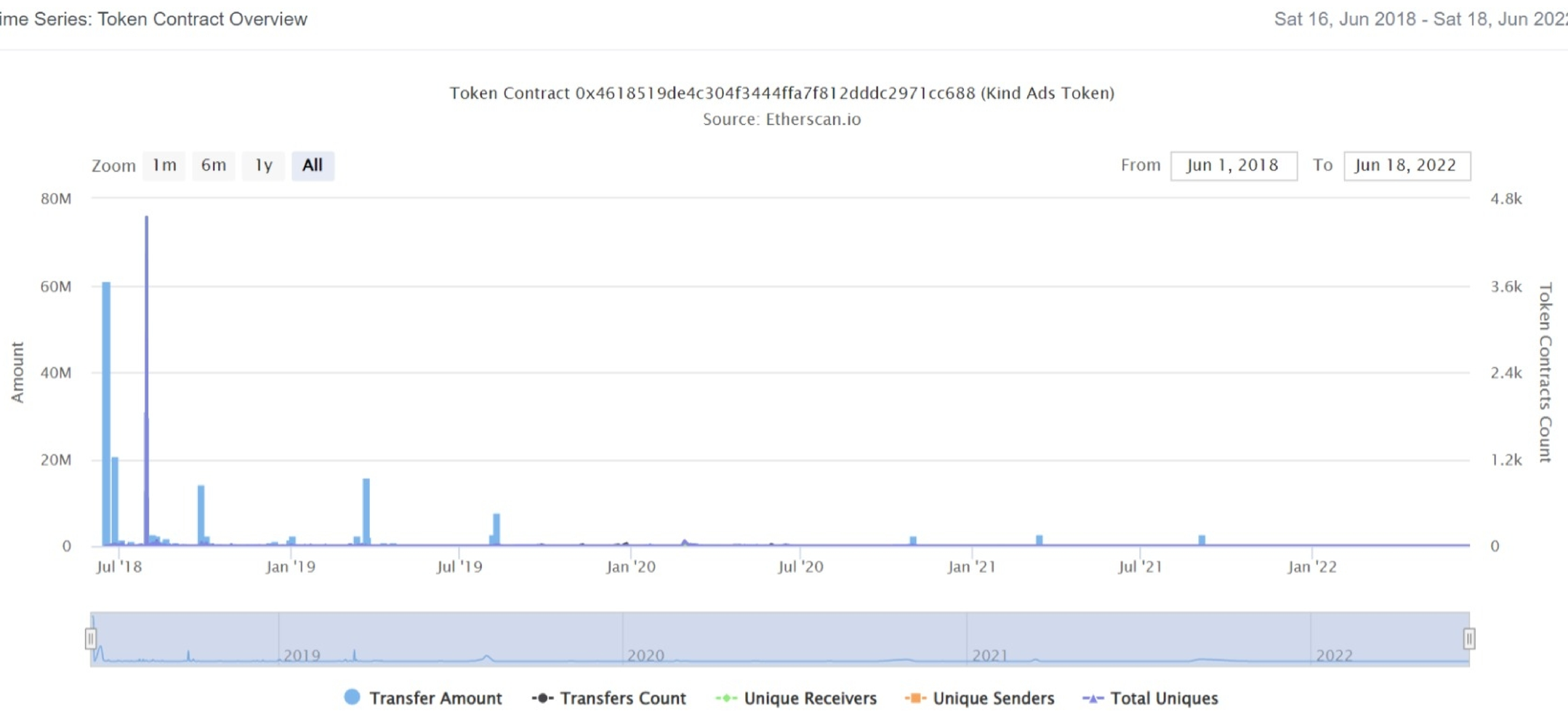
Kind Ads Token Top 20 Token Holders

(A total of 58,616,310.92 tokens held by the top 100 accounts from the total supply of 61,000,000.00 token)

Rank	Address	Quantity (Token)	Percentage
1	0x21d3fbebd47a8e61c39713c6a378915031d13dae	18,753,307	30.7431%
2	HitBTC 3	7,406,251.4714953	12.1414%
3	0x28c12facef9a6673015a4c0cc60934e145bc8cec	4,575,000	7.5000%
4	0x855c4dca95adb9ce63f09b9899882c50ad9cfc8f	2,700,000	4.4262%
5	0x0ea70cbe2fff61b0dc73e3e49a837d58b588a4e8	2,647,200	4.3397%
6	HitBTC 2	2,563,369.042	4.2022%
7	0x6e621f98ac6a41de5b9942c5287becbf5d49b813	2,000,425	3.2794%
8	0x8be3d17dc8157340813b754c955cb2f389322ecb	967,200	1.5856%
9	0x444e01dcb3a1ec1b1aa1344505ed7c8690d53281	800,000	1.3115%
10	0x4500f818b2ebd4138db8010bd14fb43392bd9cad	797,600	1.3075%
11	0xaffcc05c76687456e709561ae9956c0ec0eccc3f	638,558	1.0468%
12	0x7ec53c58ea5001ead3d4ef90cefb467bf358edae	609,592.92079208	0.9993%
13	0xc5b36c1e56e391f271dfe322fff8c01dee5ebaef	600,000	0.9836%
14	0x7ed842a4bc97eb5e527ec2bd12a4d34445f6d0fd	600,000	0.9836%
15	0x6d2f6cd46e07cb441aff552462d06f28fd84edd8	505,400	0.8285%
16	0xe1e09f4ae3612ffaa195c230003248e20cd60bd0	456,340.98	0.7481%
17	0x46abbc9fc9d8e749746b00865bc2cf7c4d85c837	449,000	0.7361%
18	0x331ba849507c87b345844d39a4c3f67e96b83b0a	429,564.75	0.7042%
19	0xff164757e639b1c8e2e7cbeb61232cad21ce221f	376,600	0.6174%
20	0x1f77fecbc6094fa0cd8a10398f04918d8a4fb47b	347,955	0.5704%

Kind Ads Token Distribution

Kind Ads Token Contract Overview



Contract functions details

+ ERC20Basic
    - [Pub] totalSupply
    -[Pub] balanceOf
    - [Pub] transfer

+[Lib] SafeMath
    -[Int] mul
    -[Int] div
    -[Int] sub
    -[Int] add

+ BasicToken (ERC20Basic)
    -[Pub] totalSupply
    -[Pub] transfer #
    -[Pub] balanceOf

+ ERC20 (ERC20Basic)
    -[Pub] allowance
    -[Pub] transferFrom
    -[Pub] approve

+ StandardToken (ERC20, BasicToken)
    -[Pub] transferFrom #
    -[Pub] approve #
    -[Pub] safeApprove #
    -[Pub] allowance
    -[Pub] increaseApproval #
    -[Pub] decreaseApproval #

+Ownable
    -[Pub] Ownable
    -[Pub] transferOwnership #
      -modifiers: onlyOwner

+ [Lib] SafeERC20
    -[Int] safeTransfer
    -[Int] safeTransferFrom
    -[Int] safeApprove

Contract functions details

+CanReclaimToken (Ownable)

-[Ext] reclaimToken

-modifiers: onlyOwner

+ KindAdsToken (StandardToken, Ownable, CanReclaimToken)

-[Pub] KindAdsToken

($) = payable function

= non-constant function

Issues Checking Status

No.	Title	Status
1.	Unlocked Compiler Version	Low issue
2.	Missing Input Validation	Passed
3.	Race conditions and Reentrancy. Cross-function race conditions.	Passed
4.	Possible delays in data delivery	Passed
5.	Oracle calls.	Passed
6.	Timestamp dependence.	Passed
7.	Integer Overflow and Underflow	Passed
8.	DoS with Revert.	Passed
9.	DoS with block gas limit.	Passed
10.	Methods execution permissions.	Passed
11.	Economy model of the contract.	Passed
12.	Private use data leaks.	Passed
13.	Malicious Event log.	Passed
14.	Scoping and Declarations.	Passed
15.	Uninitialized storage pointers.	Passed
16.	Arithmetic accuracy.	Passed
17.	Design Logic.	Passed
18.	Safe Open Zeppelin contracts implementation and usage.	Passed
19.	Incorrect Naming State Variable	Passed
20.	Too old version	Low issue

Severity Definitions

Risk Level	Description
Critical	Critical vulnerabilities are usually straightforward to exploit and can lead to assets loss or data manipulations.
High	High-level vulnerabilities are difficult to exploit; however, they also have a significant impact on smart contract execution, e.g., public access to crucial functions
Medium	Medium-level vulnerabilities are important to fix; however, they can't lead to assets loss or data manipulations.
Low	Low-level vulnerabilities are mostly related to outdated, unused, etc. code snippets that can't have a significant impact on execution.

Security Issues

Critical Severity Issues

No critical severity issue found.

High Severity Issues

No high severity issue found.

Medium Severity Issues

No medium severity issues found.

Low Severity Issues

Two low severity issue found.

1. Old compiler version

- **Description**

  Contract has been deployed using too old solidity version.

- **Recommendation**

  It is advisable to deploy contract using any of the latest version of solidity.

2. Unlocked Compiler Version.

- **Description**

  The contract utilizes an unlocked compiler version. An unlocked compiler version in the contract's source code permits the user to compile it at or above a particular version. This, in turn, leads to differences in the generated bytecode between compilations due to differing compiler version numbers. This can lead to ambiguity when debugging as compiler-specific bugs may occur in the codebase that would be difficult to identify over a span of multiple compiler versions rather than a specific one.

- **Recommendation**

  It is advisable that the compiler version is alternatively locked at the lowest version possible so that the contract can be compiled. For example, for version 0.4.18 the contract should contain the following line:

  pragma solidity 0.4.24;

Centralization

Owner Privileges :

- Kind Ads Token Contract:
    - Owner can transfer ownership.
    - Owner can reclaim token.

This smart contract has some functions which can be executed by the Admin (Owner) only. If the admin wallet private key would be compromised, then it would create trouble as smart contract ownership has not been renounced. Following are Admin functions functions:

- Transferownership
- Reclaimtoken

Conclusion

Smart contract contains low severity issues! The further transfer and operations with the fund raised are not related to this particular contract.

HackSafe 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.