

Blockchain Security - Smart Contract Audits

Security Assessment

September 3, 2022



Disclaimer	3
Scope of Work & Engagement	3
Risk Level Classification	4
Methodology	5
Project Description	6
Token Details	6
Verify Claim	7
Overall Checkup	8
SWC Attacks	9
Audit Result	11
Audit Comments	12

Disclaimer

ContractWolf.io audits and reports should not be considered as a form of project's "advertisement" and does not cover any interaction and assessment from "project's contract" to "external contracts" such as Pancakeswap or similar.

ContractWolf does not provide any warranty on its released reports.

ContractWolf should not be used as a <u>decision</u> to invest into an audited project and is not affiliated nor partners to its audited contract projects.

ContractWolf provides transparent report to all its "clients" and to its "clients participants" and will not claim any guarantee of bug-free code within its SMART CONTRACT.

ContractWolf presence is to analyze, audit and assess the client's smart contract's code.

Each company or projects should be liable to its security flaws and functionalities.

Scope of Work

Kadoge team agreed and provided us with the files that needs to be tested (Github, Bscscan, Etherscan, files, etc.). The scope of the audit is the main contract.

The goal of this engagement was to identify if there is a possibility of security flaws in the implementation of the contract or system.

ContractWolf will be focusing on contract issues and functionalities along with the projects claims from smart contract to their website, whitepaper and repository which has been provided by **Kadoge**.

Risk Level Classification

Risk Level represents the classification or the probability that a certain function or threat that can exploit vulnerability and have an impact within the system or contract.

Risk Level is computed based on CVSS Version 3.0

Level	Value	Vulnerability
Critical	9 - 10	An Exposure that can affect the contract functions in several events that can risk and disrupt the contract
High	7 - 8.9	An Exposure that can affect the outcome when using the contract that can serve as an opening in manipulating the contract in an unwanted manner
Medium	4 - 6.9	An opening that could affect the outcome in executing the contract in a specific situation
Low	0.1 - 3.9	An opening but doesn't have an impact on the functionality of the contract
Informational	0	An opening that consists of information's but will not risk or affect the contract

Auditing Approach

Every line of code along with its functionalities will undergo manual review to check its security issues, quality, and contract scope of inheritance. The manual review will be done by our team that will document any issues that there were discovered.

Methodology

The auditing process follows a routine series of steps:

- 1. Code review that includes the following:
 - Review of the specifications, sources, and instructions provided to ContractWolf to make sure we understand the size, scope, and functionality of the smart contract.
 - Manual review of code, our team will have a process of reading the code line-by-line with the intention of identifying potential vulnerabilities and security flaws.
- 2. Testing and automated analysis that includes:
 - Testing the smart contract functions with common test cases and scenarios, to ensure that it returns the expected results.
- 3. Best practices review, the team will review the contract with the aim to improve efficiency, effectiveness, clarifications, maintainability, security, and control within the smart contract.
- 4. Recommendations to help the project take steps to secure the smart contract.

Project Description

Kadoge is your first doge moonshot on Kadena Chain. Learn more about our outstanding features and what the future holds for our Holders.

Token Details

Decimal: 12

Symbol: KDOGE

Max / Total supply: 100,000,000

Verify Claims

Statement	Exist	Tested	Deployer
Renounce Ownership	_	_	_
Mint	_	_	_
Burn	_	_	_
Block	_	_	_
Pause	_	_	_

Legend

Attribute	Symbol
Verified / Can	✓
Verified / Cannot	X
Unverified / Not checked	
Not Available	_

Correct implementation of Token Standard

Tested	Verified
√	✓

Overall Checkup (Smart Contract Security)

Tested	Verified
√	✓

Function	Description	Exist	Tested	Verified
TotalSupply	Information about the total coin or token supply	√	√	√
BalanceOf	Details on the account balance from a specified address	√	√	✓
Transfer	An action that transfers a specified amount of coin or token to a specified address	√	√	✓
TransferFrom	An action that transfers a specified amount of coin or token from a specified address	√	√	✓
Approve	Provides permission to withdraw specified number of coin or token from a specified address	√	√	√

SWC Attacks

ID	Title	Status
SWC-136	Unencrypted Private Data On-Chain	PASSED
<u>SWC-135</u>	Code With No Effects	PASSED
SWC-134	Message call with hardcoded gas amount	PASSED
SWC-133	Hash Collisions with Multiple Variable Length Arguments	PASSED
<u>SWC-132</u>	Unexpected Ether balance	PASSED
<u>SWC-131</u>	Presence of unused variables	PASSED
SWC-130	Right-To Left Override control character (U+202E)	PASSED
SWC-129	Typographical Error	PASSED
<u>SWC-128</u>	DoS With Block Gas Limit	PASSED
<u>SWC-127</u>	Arbitrary Jump with Function Type Variable	PASSED
SWC-126	Insufficient Gas Griefing	PASSED
SWC-125	Incorrect Inheritance Order	PASSED
<u>SWC-124</u>	Write to Arbitrary Storage Location	PASSED
<u>SWC-123</u>	Requirement Violation	PASSED
<u>SWC-122</u>	Lack of Proper Signature Verification	PASSED
SWC-121	Missing Protection against Signature Replay Attacks	PASSED
<u>SWC-120</u>	Weak Sources of Randomness from Chain Attributes	PASSED
<u>SWC-119</u>	Shadowing State Variables	PASSED
<u>SWC-118</u>	Incorrect Constructor Name	PASSED
<u>SWC-117</u>	Signature Malleability	PASSED
<u>SWC-116</u>	Block values as a proxy for time	PASSED
<u>SWC-115</u>	Authorization through tx.origin	PASSED
<u>SWC-114</u>	Transaction Order Dependence	PASSED
<u>SWC-113</u>	DoS with Failed Call	PASSED
<u>SWC-112</u>	Delegate call to Untrusted Callee	PASSED
<u>SWC-111</u>	Use of Deprecated Solidity Functions	PASSED

SWC-110	Assert Violation	PASSED
<u>SWC-109</u>	Uninitialized Storage Pointer	PASSED
SWC-108	State Variable Default Visibility	PASSED
SWC-107	Reentrancy	PASSED
<u>SWC-106</u>	Unprotected SELFDESTRUCT Instruction	PASSED
<u>SWC-105</u>	Unprotected Ether Withdrawal	PASSED
<u>SWC-104</u>	Unchecked Call Return Value	PASSED
SWC-103	Floating Pragma	PASSED
<u>SWC-102</u>	Outdated Compiler Version	PASSED
SWC-101	Integer Overflow and Underflow	PASSED
<u>SWC-100</u>	Function Default Visibility	PASSED

AUDIT PASSED

Critical Issues

No critical issues found

High Issues

No high issues found

Medium Issues

No medium issues found

Low Issues

No low issues found

Informational Issues

No informational issues found

Function Issues

No informational issues found

Audit Comments

- Owner can set denomination for token transactions
- Contract has no antibot
- Contract has no fees
- Owner cannot renounce ownership
- Owner cannot transfer ownership
- Owner cannot burn tokens
- Owner cannot whitelist/blacklist
- Owner cannot pause contract
- Owner cannot mint after initial deployment



CONTRACTWOLF

Blockchain Security - Smart Contract Audits