

AUDIT.



Smart Contract Audit

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**AUDIT-SC
PARTNER
Avoge**

WWW.AUDIT.SC

2022





FULL SMART CONTRACT AUDIT SOLIDITY CHECK

Audit SC Guarantees that every smart contract that has been audited has gone through both automated Smart Contract Scanner Softwares and is manually verified by one of our highly experienced smart contract experts.



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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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OVERVIEW

PROJECT SUMMARY

Project Name **Avoge**

Platform **AVAX**

Language **Solidity**

AUDIT SUMMARY

Date **13-04-2022**

Audit Type **Static Analysis, Manual Review**

Audit Result **PENDING**

RISK SUMMARY

Risk Level	Total	Found	Pending	Solved	Acknowledgde	Objected
Critical	0	0	0	0	0	0
Major	0	0	0	0	0	0
Medium	1	1	1	0	0	0
Minor	5	5	5	0	0	0
Informative	20	20	20	0	0	0
Discussion	0	0	0	0	0	0

FINDINGS

Function Default Visibility

SWC-ID: SWC-100

Relationship:

CWE-710: Improper Adherence to Coding Standards

Description:

Functions that do not have a function visibility type specified are public by default. This can lead to a vulnerability if a developer forgot to set the visibility and a malicious user is able to make unauthorized or unintended state changes or unnecessary gas usage.

Relevance:

public functions that are never called by the contract should be declared external.

Category	Risk Level	Number of Findings	Status
SWC-100	Informative	5	Pending

Constable State

SWC-ID: SWC-108

Relationship:

CWE-710: Improper Adherence to Coding Standards

Description:

Labeling the visibility explicitly makes it easier to catch incorrect assumptions about who can access the variable and save gas usage.

Category	Risk Level	Number of Findings	Status
SWC-108	Informative	5	Pending

Dead Code

SWC-ID: SWC-131

Relationship:

CWE-1164: Irrelevant Code

Description:

Unused variables are allowed in Solidity and they do not pose a direct security issue. It is best practice though to avoid them as they can:

- cause an increase in computations (and unnecessary gas consumption)
- indicate bugs or malformed data structures and they are generally a sign of poor code quality
- cause code noise and decrease readability of the code

Category	Risk Level	Number of Findings	Status
SWC-131	Informational	10	Pending

Push-Over-Pull

Description:

The owner of the contract is transferred to an arbitrary address without checking if the recipient is able to accept ownership, or is a contract address with no method of controlling the ownership functions.

Category	Risk Level	Number of Findings	Status
Access Control	Medium	1	Pending

Missing Events

Description:

The contract may change significant state variables in the contract, but does not emit these changes in events. This may result in lack of transparency or 3rd party applications being unable to properly register the contract's current state

Relevance:

[setAutoBuybackSettings\(\)](#), [setTxLimit](#), [setFees](#), [setSwapBackSettings](#), [setTargetLiquidity](#) are changing state variables that are critical to the project, and should emit an event upon changing

Category	Risk Level	Number of Findings	Status
Information Transparency	Minor	5	Pending

AUDIT DETAILS

SCW-100 Function Default Visibility

getMultipliedFee() should be declared external

launch() should be declared external

setFree() should be declared external

unSetFree() should be declared external

checkFree() should be declared external

Constable State

EP should be marked as constant

ZERO should be marked as constant

DEAD_NON_CHECKSUM should be marked as constant

DEAD should be marked as constant

_totalSupply should be marked as constant

SCW-131 Unused Code

DEAD_NON_CHECKSUM

EP

LAUNCHED()

ALL OF SAFEMATH, EXCEPT ADD & SUB

Are never used and should be removed

AUDIT RESULT

Basic Coding Bugs

1. Constructor Mismatch

o Description: Whether the contract name and its constructor are not identical to each other.

o Result: PASSED

o Severity: Critical

Ownership Takeover

o Description: Whether the set owner function is not protected.

o Result: PASSED

o Severity: Critical

Redundant Fallback Function

o Description: Whether the contract has a redundant fallback function.

o Result: PASSED

o Severity: Critical

Overflows & Underflows

Description: Whether the contract has general overflow or underflow

Vulnerabilities

o Result: PASSED

o Severity: Critical

Reentrancy

o Description: Reentrancy is an issue when code can call back into your contract and change state, such as withdrawing ETHs.

o Result: PASSED

o Severity: Critical

MONEY-Giving Bug

o Description: Whether the contract returns funds to an arbitrary address.

o Result: PASSED

o Severity: High

Blackhole

o Description: Whether the contract locks ETH indefinitely; merely in without out.

o Result: PASSED

o Severity: High

Unauthorized Self-Destruct

o Description: Whether the contract can be killed by any arbitrary address.

o Result: PASSED

o Severity: Medium

Revert DoS

o Description: Whether the contract is vulnerable to DoS attack because of unexpected revert.

o Result: PASSED

o Severity: Medium

Unchecked External Call

o Description: Whether the contract has any external call without checking the return value.

o Result: PASSED

o Severity: Medium

Gasless Send

o Description: Whether the contract is vulnerable to gasless send.

o Result: PASSED

o Severity: Medium

Send Instead of Transfer

o Description: Whether the contract uses send instead of transfer.

o Result: PASSED

o Severity: Medium

Costly Loop

o Description: Whether the contract has any costly loop which may lead to Out-Of-Gas exception.

o Result: PASSED

o Severity: Medium

(Unsafe) Use of Untrusted Libraries

o Description: Whether the contract use any suspicious libraries.

o Result: PASSED

o Severity: Medium

(Unsafe) Use of Predictable Variables

o Description: Whether the contract contains any randomness variable, but its value can be predicated.

o Result: PASSED

o Severity: Medium

Transaction Ordering Dependence

o Description: Whether the final state of the contract depends on the order of the transactions.

o Result: PASSED

o Severity: Medium

. Deprecated Uses

o Description: Whether the contract use the deprecated tx.origin to perform the authorization.

o Result: PASSED

o Severity: Medium

AUDIT.



CONTACTUS

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