



ARBICHECK

Hash DAO

Smart Contract Audit



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Audited on Apr 17 2023

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Audit Summary

Project Name	Hash DAO
Contract Address	0xb557c071BAe7DC3aa2366Cd0FC0477B45Eb696f1
Deployer Address	0x225114369fa6b133400a4bb86d08c62044387266
Website	https://www.hashdao.finance/
Language	Solidity
Blockchain	Arbitrum
Audit Date	Apr 17 2023

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.

This audit report has been prepared by Arbicheck's experts at the request of the client. 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.

Audit Scope

Arbicheck team was commissioned by Hash DAO to perform an audit based on the following smart contracts:

<https://arbiscan.io/address/0xb557c071BAe7DC3aa2366Cd0FC0477B45Eb696f1#code>

<https://arbiscan.io/address/0x99FE96b9eEA24b4E71Ac1A56F2c1886BbCA22540#code>

<https://arbiscan.io/address/0x019622fB05Dd0c80751798949E795fF5d5E3a61f#code>

Note that we **ONLY** audited the code available to us on this URL at the time of the audit. If the URL is not from any block explorer (main net), it may be subject to change. Always check the contract address on this audit report and compare it to the token you are doing research for.

SWC Attack Analysis

The Smart Contract Weakness Classification Registry (SWC Registry) is an implementation of the weakness classification scheme proposed in [EIP-1470](#).

ID	Description	Status
SWC-100	Function Default Visibility	Not Found
SWC-101	Integer Overflow and Underflow	Not Found
SWC-102	Outdated Compiler Version	Not Found
SWC-103	Floating Pragma	Not Found
SWC-104	Unchecked Call Return Value	Not Found
SWC-105	Unprotected Ether Withdrawal	Not Found
SWC-106	Unprotected SELF DESTRUCT Instruction	Not Found
SWC-107	Reentrancy	Not Found
SWC-108	State Variable Default Visibility	Not Found
SWC-109	Uninitialized Storage Pointer	Not Found
SWC-110	Assert Violation	Not Found
SWC-111	Use of Deprecated Solidity Functions	Not Found
SWC-112	Delegatecall to Untrusted Callee	Not Found
SWC-113	DoS with Failed Call	Not Found
SWC-114	Transaction Order Dependence	Not Found
SWC-115	Authorization through tx.origin	Not Found
SWC-116	Block values as a proxy for time	Not Found

SWC-117	Signature Malleability	Not Found
SWC-118	Incorrect Constructor Name	Not Found
SWC-119	Shadowing State Variables	Not Found
SWC-120	Weak Sources of Randomness from Chain Attributes	Not Found
SWC-121	Missing Protection against Signature Replay Attacks	Not Found
SWC-122	Lack of Proper Signature Verification	Not Found
SWC-123	Requirement Violation	Not Found
SWC-124	Write to Arbitrary Storage Location	Not Found
SWC-125	Incorrect Inheritance Order	Not Found
SWC-126	Insufficient Gas Grieng	Not Found
SWC-127	Arbitrary Jump with Function Type Variable	Not Found
SWC-128	DoS With Block Gas Limit	Not Found
SWC-129	Typographical Error	Not Found
SWC-130	Right-To-Left-Override control character (U+202E)	Not Found
SWC-131	Presence of unused variables	Not Found
SWC-132	Unexpected Ether balance	Not Found
SWC-133	Hash Collisions With Multiple Variable Length Arguments	Not Found
SWC-134	Message call with hardcoded gas amount	Not Found
SWC-135	Code With No Effects	Not Found
SWC-136	Unencrypted Private Data On-Chain	Not Found

Owner Privileges

- Admin can change the admin
- Admin can upgrade implementation

Risk Classification

Arbicheck uses certain vulnerability levels, these indicate how bad a certain issue is. The higher the risk, the more strictly it is recommended to correct the error before using the contract.

Vulnerability Level	Description
High Issues	These issues will cause the problems and SHOULD be adjusted
Medium Issues	These issues will likely cause the problems and recommended to be adjusted
Low Issues	These issues will not cause any problems, but can be adjusted for the improvement
Notes	Does not compromise the functionality of the contract and just the general recommendations






Lack of zero address checks

Low Issue

Description

- `UpgradeabilityProxy.constructor(address,bytes)._logic` missing zero address validation.
- `AdminUpgradeabilityProxy.upgradeToAndCall(address,bytes).newImplementation` missing zero address validation.

Deploy Snapshot

Transaction Hash:	0x1a65cce18461f4fe8f86a5e8dfc6593cc8e831a0a9f4e20c72c91c414dbc4346 
Status:	Success 
Block:	76851120 448337 L1 Block Confirmations
Timestamp:	63 days 8 hrs ago (Apr-04-2023 05:37:42 AM +UTC)
From:	0x225114369fa6b133400a4bb86d08c62044387266 (HashDAO: Deployer) 
To:	[Contract 0xb557c071bae7dc3aa2366cd0fc0477b45eb696f1 Created]  
Value:	0 ETH (\$0.00)
Transaction Fee:	0.0004149883 ETH (\$0.75)
Gas Price Bid:	0.0000000001 ETH (0.1 Gwei)
Gas Price Paid:	0.0000000001 ETH (0.1 Gwei)

Note:

Only the proxy contracts with current addresses were audited without the implemented code.

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice 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 disclaimer below – please make sure to read it in full.

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