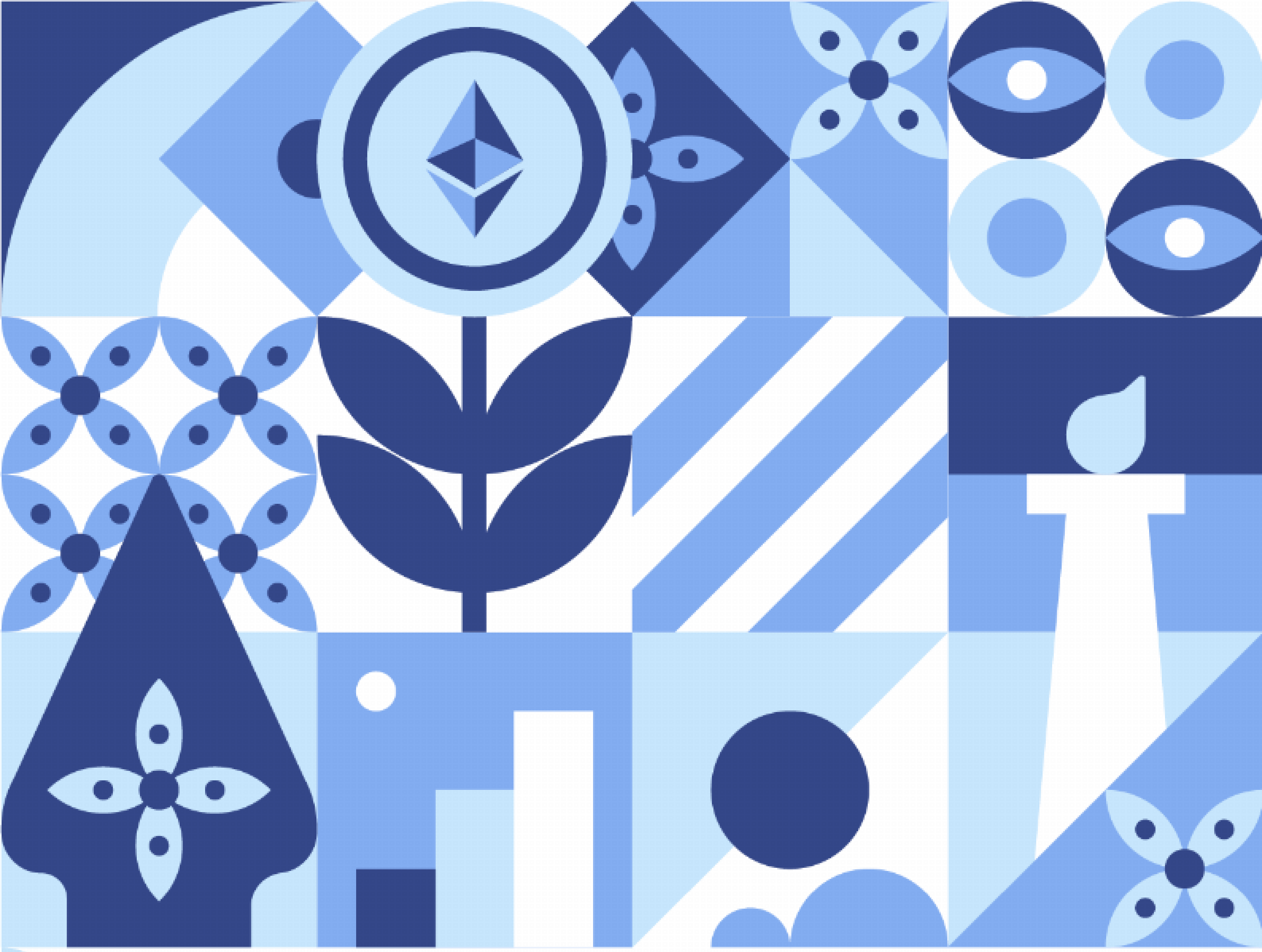

ChainGuardians Governance Token

Smart Contract Audit Report

SYSFIXED

06 Mar 2021

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AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain
ChainGuardians Governance Token	CGG	Ethereum

Addresses

Contract address	0x1fe24f25b1cf609b9c4e7e12d802e3640dfa5e43
Contract deployer address	0xA3398CF357C154B6abB5460427f6DC37aB36Cb76

Project Website

https://www.chainguardians.io/

Codebase

https://etherscan.io/address/0x1fe24f25b1cf609b9c4e7e12d802e3640dfa5e43#code

SUMMARY

ChainGuardians is an ecosystem which enables users to earn tokens through playing gaming experiences and participating on our platforms.

Contract Summary

Documentation Quality

ChainGuardians Governance Token provides a very good documentation with standard of solidity base code.

- The technical description is provided clearly and structured and also dont have any high risk issue.

Code Quality

The Overall quality of the basecode is standard.

- Standard solidity basecode and rules are already followed by ChainGuardians Governance Token with the discovery of several low issues.

Test Coverage

Test coverage of the project is 100% (Through Codebase)

Audit Findings Summary

- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 7, 32, 110, 326, 633, 702, 740, 755 and 764.
- SWC-110 SWC-123 | It is recommended to use of revert(), assert(), and require() in Solidity, and the new REVERT opcode in the EVM on lines 826.

CONCLUSION

We have audited the ChainGuardians Governance Token project released on March 2021 to discover issues and identify potential security vulnerabilities in ChainGuardians Governance Token Project. This process is used to find technical issues and security loopholes which might be found in the smart contract.

The security audit report provides a satisfactory result with some low-risk issues.

The issues found in the ChainGuardians Governance Token smart contract code do not pose a considerable risk. The writing of the contract is close to the standard of writing contracts in general. The low-risk issues found are floating pragmas set on several lines and a requirement was violated in a nested call and the call was reverted as a result. Make sure valid inputs are provided to the nested call (for instance, via passed arguments).

AUDIT RESULT

Article	Category	Description	Result
Default Visibility	SWC-100 SWC-108	Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously.	PASS
Integer Overflow and Underflow	SWC-101	If unchecked math is used, all math operations should be safe from overflows and underflows.	PASS
Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.	PASS
Floating Pragma	SWC-103	Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly.	ISSUE FOUND
Unchecked Call Return Value	SWC-104	The return value of a message call should be checked.	PASS
Unprotected Ether Withdrawal	SWC-105	Due to missing or insufficient access controls, malicious parties can withdraw from the contract.	PASS
SELFDESTRUCT Instruction	SWC-106	The contract should not be self-destructible while it has funds belonging to users.	PASS
Reentrancy	SWC-107	Check effect interaction pattern should be followed if the code performs recursive call.	PASS
Uninitialized Storage Pointer	SWC-109	Uninitialized local storage variables can point to unexpected storage locations in the contract.	PASS
Assert Violation	SWC-110 SWC-123	Properly functioning code should never reach a failing assert statement.	ISSUE FOUND
Deprecated Solidity Functions	SWC-111	Deprecated built-in functions should never be used.	PASS
Delegate call to Untrusted Callee	SWC-112	Delegatecalls should only be allowed to trusted addresses.	PASS

DoS (Denial of Service)	SWC-113 SWC-128	Execution of the code should never be blocked by a specific contract state unless required.	PASS
Race Conditions	SWC-114	Race Conditions and Transactions Order Dependency should not be possible.	PASS
Authorization through tx.origin	SWC-115	tx.origin should not be used for authorization.	PASS
Block values as a proxy for time	SWC-116	Block numbers should not be used for time calculations.	PASS
Signature Unique ID	SWC-117 SWC-121 SWC-122	Signed messages should always have a unique id. A transaction hash should not be used as a unique id.	PASS
Incorrect Constructor Name	SWC-118	Constructors are special functions that are called only once during the contract creation.	PASS
Shadowing State Variable	SWC-119	State variables should not be shadowed.	PASS
Weak Sources of Randomness	SWC-120	Random values should never be generated from Chain Attributes or be predictable.	PASS
Write to Arbitrary Storage Location	SWC-124	The contract is responsible for ensuring that only authorized user or contract accounts may write to sensitive storage locations.	PASS
Incorrect Inheritance Order	SWC-125	When inheriting multiple contracts, especially if they have identical functions, a developer should carefully specify inheritance in the correct order. The rule of thumb is to inherit contracts from more /general/ to more /specific/.	PASS
Insufficient Gas Griefing	SWC-126	Insufficient gas griefing attacks can be performed on contracts which accept data and use it in a sub-call on another contract.	PASS
Arbitrary Jump Function	SWC-127	As Solidity doesnt support pointer arithmetics, it is impossible to change such variable to an arbitrary value.	PASS

Typographical Error	SWC-129	A typographical error can occur for example when the intent of a defined operation is to sum a number to a variable.	PASS
Override control character	SWC-130	Malicious actors can use the Right-To-Left-Override unicode character to force RTL text rendering and confuse users as to the real intent of a contract.	PASS
Unused variables	SWC-131 SWC-135	Unused variables are allowed in Solidity and they do not pose a direct security issue.	PASS
Unexpected Ether balance	SWC-132	Contracts can behave erroneously when they strictly assume a specific Ether balance.	PASS
Hash Collisions Variable	SWC-133	Using abi.encodePacked() with multiple variable length arguments can, in certain situations, lead to a hash collision.	PASS
Hardcoded gas amount	SWC-134	The transfer() and send() functions forward a fixed amount of 2300 gas.	PASS
Unencrypted Private Data	SWC-136	It is a common misconception that private type variables cannot be read.	PASS

SMART CONTRACT ANALYSIS

Started	Friday Mar 05 2021 16:14:51 GMT+0000 (Coordinated Universal Time)
Finished	Saturday Mar 06 2021 21:01:19 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	CGGToken.sol

Detected Issues

ID	Title	Severity	Status
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
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SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-123	REQUIREMENT VIOLATION.	low	acknowledged

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 7

low SEVERITY

The current pragma Solidity directive is "">=0.6.0<0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- CGGToken.sol

Locations

```
6
7    pragma solidity >=0.6.0 <0.8.0;
8
9    /*
10    * @dev Provides information about the current execution context, including the
11
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 32

low SEVERITY

The current pragma Solidity directive is "">=0.6.0<0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- CGGToken.sol

Locations

```
31
32   pragma solidity >=0.6.0 <0.8.0;
33
34   /**
35   * @dev Interface of the ERC20 standard as defined in the EIP.
36
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 110

low SEVERITY

The current pragma Solidity directive is "">=0.6.0<0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- CGGToken.sol

Locations

```
109
110   pragma solidity >=0.6.0 <0.8.0;
111
112   /**
113   * @dev Wrappers over Solidity's arithmetic operations with added overflow
114
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 326

low SEVERITY

The current pragma Solidity directive is "">=0.6.0<0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- CGGToken.sol

Locations

```
325
326   pragma solidity >=0.6.0 <0.8.0;
327
328
329
330
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 633

low SEVERITY

The current pragma Solidity directive is """>=0.6.0<0.8.0""". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- CGGToken.sol

Locations

```
632
633   pragma solidity >=0.6.0 <0.8.0;
634
635   /**
636   * @dev Contract module which provides a basic access control mechanism, where
637
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 702

low SEVERITY

The current pragma Solidity directive is ""^0.7.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- CGGToken.sol

Locations

```
701
702   pragma solidity ^0.7.0;
703
704   //import "@openzeppelin/contracts/utils/Context.sol";
705
706
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 740

low SEVERITY

The current pragma Solidity directive is ""^0.7.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- CGGToken.sol

Locations

```
739
740   pragma solidity ^0.7.0;
741
742   //import "@openzeppelin/contracts/token/ERC20/IERC20.sol";
743   //abstract contract IERC677 is IERC20 {
744
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 755

low SEVERITY

The current pragma Solidity directive is ""^0.7.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- CGGToken.sol

Locations

```
754
755   pragma solidity ^0.7.0;
756
757   abstract contract IERC677Receiver {
758   function onTokenTransfer(address _sender, uint _value, bytes memory _data) public
virtual;
759
```

SWC-103 | A FLOATING PRAGMA IS SET.

LINE 764

low SEVERITY

The current pragma Solidity directive is ""^0.7.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- CGGToken.sol

Locations

```
763
764   pragma solidity ^0.7.0;
765
766
767
768
```

SWC-123 | REQUIREMENT VIOLATION.

LINE 826

low SEVERITY

A requirement was violated in a nested call and the call was reverted as a result. Make sure valid inputs are provided to the nested call (for instance, via passed arguments).

Source File

- CGGToken.sol

Locations

```
825   IERC677Receiver receiver = IERC677Receiver(_to);
826   receiver.onTokenTransfer(msg.sender, _value, _data);
827   }
828   return true;
829   }
830
```

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