

# Graviton Smart Contract Audit Report



07 May 2021



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# AUDITED DETAILS

# Audited Project

| Project name | Token ticker | Blockchain |  |
|--------------|--------------|------------|--|
| Graviton     | GTON         | Fantom     |  |

### Addresses

| Contract address          | 0xc1be9a4d5d45beeacae296a7bd5fadbfc14602c4 |
|---------------------------|--|
| Contract deployer address | 0xfA9dA51631268A30Ec3DDd1CcBf46c65FAD99251 |

# Project Website

#### https://gton.capital/

### Codebase

https://ftmscan.com/address/0xc1be9a4d5d45beeacae296a7bd5fadbfc14602c4#code



# SUMMARY

### Contract Summary

#### **Documentation Quality**

Graviton 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 GOOD.

• Solidity basecode and rules are clearly followed by Graviton.

#### **Test Coverage**

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

### Audit Findings Summary

We didn't find any issues in our audit results for Graviton smart contracts. This result is very satisfying. Judging from the code base of this smart contract, this smart contract follows the official Solidity style guide.



# CONCLUSION

We have audited the Graviton project released on May 2021 to discover issues and identify potential security vulnerabilities in Graviton 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. This smart contract doesn't have any issues.

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# AUDIT RESULT

| Article                              | Category           | Description   | Result |
|--------------------------------------|--------------------|---|--------|
| Default Visibility                   | SWC-100<br>SWC-108 | Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously. | PASS   |
| Integer Overflow<br>and Underflow    | SWC-101            | If unchecked math is used, all math operations should be safe from overflows and underflows.                          | PASS   |
| Outdated Compiler<br>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.          | PASS   |
| Unchecked Call<br>Return Value       | SWC-104            | The return value of a message call should be checked.   | PASS   |
| Unprotected Ether<br>Withdrawal      | SWC-105            | Due to missing or insufficient access controls, malicious parties can withdraw from the contract.                     | PASS   |
| SELFDESTRUCT<br>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<br>Storage Pointer     | SWC-109            | Uninitialized local storage variables can point to unexpected storage locations in the contract.                      | PASS   |
| Assert Violation                     | SWC-110<br>SWC-123 | Properly functioning code should never reach a failing assert statement.  | PASS   |
| Deprecated Solidity<br>Functions     | SWC-111            | Deprecated built-in functions should never be used.   | PASS   |
| Delegate call to<br>Untrusted Callee | SWC-112            | Delegatecalls should only be allowed to trusted addresses.  | PASS   |



| DoS (Denial of<br>Service)             | SWC-113<br>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<br>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<br>ID                 | SWC-117<br>SWC-121<br>SWC-122 | Signed messages should always have a unique id. A transaction hash should not be used as a unique id.  | PASS |
| Incorrect<br>Constructor Name          | SWC-118                       | Constructors are special functions that are called only once during the contract creation.   | PASS |
| Shadowing State<br>Variable            | SWC-119                       | State variables should not be shadowed.  | PASS |
| Weak Sources of<br>Randomness          | SWC-120                       | Random values should never be generated from Chain Attributes or be predictable.   | PASS |
| Write to Arbitrary<br>Storage Location | SWC-124                       | The contract is responsible for ensuring that only authorized<br>user or contract accounts may write to sensitive storage<br>locations.  | PASS |
| Incorrect<br>Inheritance Order         | SWC-125                       | When inheriting multiple contracts, especially if they have<br>identical functions, a developer should carefully specify<br>inheritance in the correct order. The rule of thumb is to<br>inherit contracts from more /general/ to more /specific/. | PASS |
| Insufficient Gas<br>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<br>Function             | SWC-127                       | As Solidity doesnt support pointer arithmetics, it is impossible to change such variable to an arbitrary value.  | PASS |



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



# **SMART CONTRACT ANALYSIS**

| Started          | Thursday May 06 2021 17:50:42 GMT+0000 (Coordinated Universal Time) |  |
|------------------|---|--|
| Finished         | Friday May 07 2021 02:02:45 GMT+0000 (Coordinated Universal Time)   |  |
| Mode             | Standard  |  |
| Main Source File | AnyswapV4ERC20.sol  |  |

### Detected Issues

We didn't find any issues in this smart contract.



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This is a limited report on our findings based on our analysis, in accordance with good industry practice as of 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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# ABOUT US

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