MOTECH AUDIT

SMART CONTRACT SECURITY AUDIT

SECURITY ASSESSMENT

AVNRICH TOKEN

2021

12 OCT 2021

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SMART CONTRACT SECURITY AUDIT

SUMMARY

This report has been prepared for AVNRich Token to discover issues and vulnerabilities in the source code of the AVNRich Token project as well as any contract dependencies that were not part of an officially recognized library. A comprehensive examination has been performed, utilizing Static Analysis and ManualReview techniques.

The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Ensuring contract logic meets the specifications and intentions of the client.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- Thorough line-by-line manual review of the entire codebase by industry experts

The security assessment resulted in findings that ranged from critical to informational. We recommend addressing these findings to ensure a high level of security standards and industry practices. We suggest recommendations that could better serve the project from the security perspective:

- Enhance general coding practices for better structures of source codes;Add enough unit tests to cover the possible use cases;
- Provide more comments per each function for readability, especially contracts that are verified in public;
- Provide more transparency on privileged activities once the protocol is live.

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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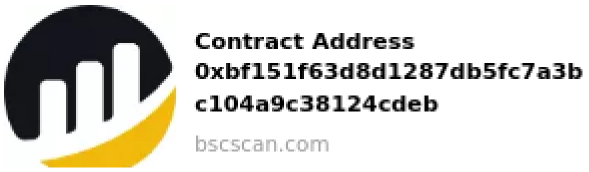
The analysis of the security is purely based on the smart contracts alone.
No applications or operations were reviewed for security.
No product code has been reviewed.

BACKGROUND

MOTECH AUDIT was commissioned by AVNRich Token to perform an audit of smart contracts:

https://bscscan.com/address/0xbf151f63d8d1287db5fc7a3bc104a9c38124cdeb#code



Contract Address
0xbf151f63d8d1287db5fc7a3b
c104a9c38124cdeb
bscscan.com

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.

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.

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AUDIT DETAILS

AUDITED PROJECT

AVNRich PVT. LTD

DEPLOYER ADDRESS

0xeb1d7202FF28cA65eb3B490163586f86e3e78922

CLIENT CONTACTS:

AVNRich Token team

BLOCKCHAIN

Binance Smart Chain

WEBSITE:

https://avnrich.shop
https://farm.avnrichdefi.com

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CONTRACT DETAILS

Token contract details for 14.10.2021

Contract name	AVNRich Token
Contract address	0xbf151F63D8d1287db5FC7a3bc104a9c38124cdeB
Total supply	270,033,228.25
Token ticker	AVN
Decimals	18
Token holders	5
Transactions count	49
Top 100 holders dominance	100.00%
Contract deployer address	0xeb1d7202FF28cA65eb3B490163586f86e3e78922
Contract's current owner address	0xee963287b4ba63efcc91134ed2d729ef6537f85d

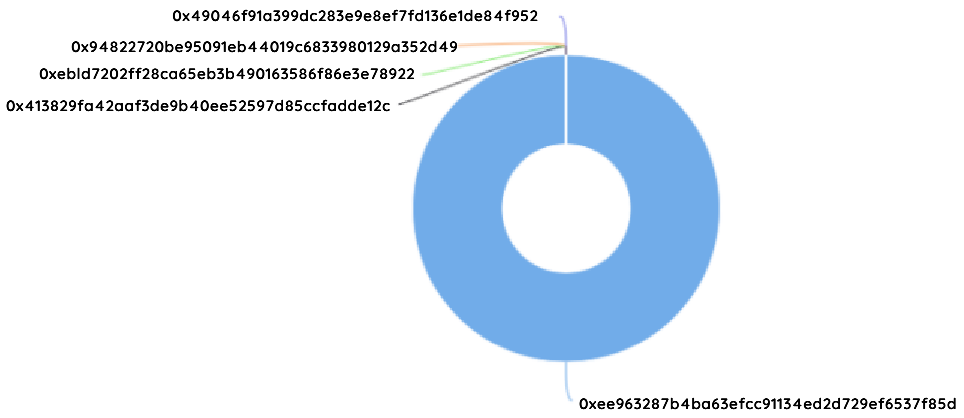
AVNRICH TOKEN TOKEN DISTRIBUTION

The Top 100 Token Holders collectively own 100.00% (270,033,288.25 Tokens)of AVNRich Token

Token Total Supply: 280,033,228.25 token | Total Token Holders: 5

AVNRich Token Top 100 Token Holders

source:BscScan.com



(A total of 270,033,288.25 tokens held by the top 100 accounts from the total supply of 270,033,228.25 token)

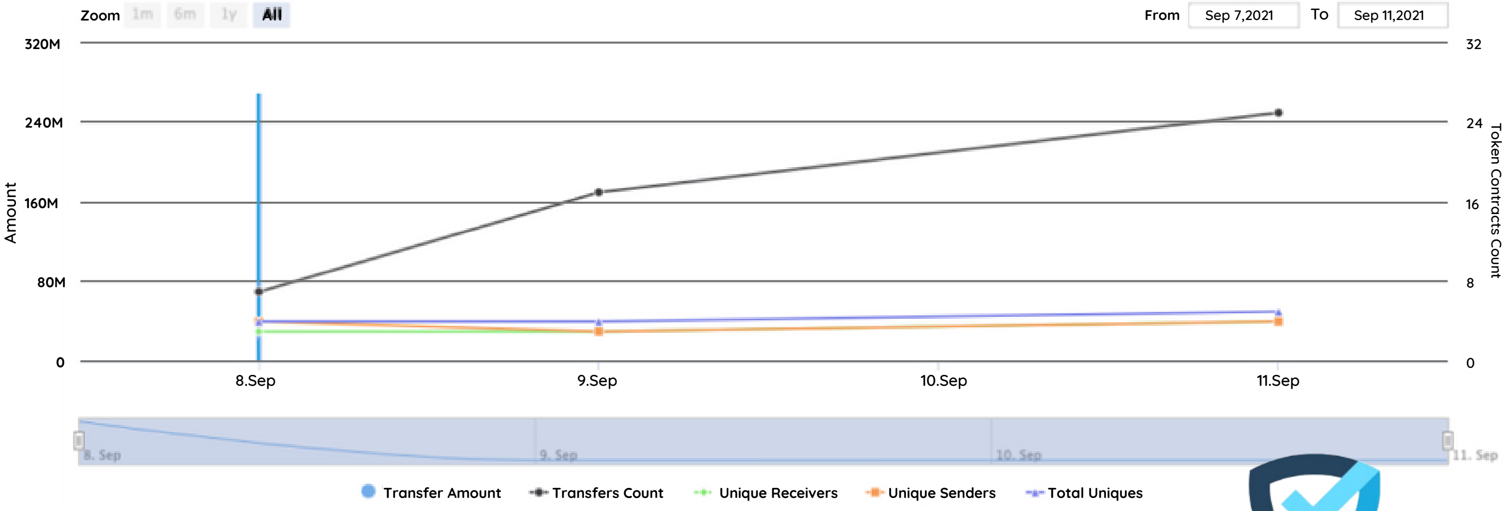
AVNRICH TOKEN CONTRACT INTERACTION DETAILS

Time Series: Token Contract Overview

Wed 8, Sept 2021 - Sat 11, Sept 2021

Time Contract 0xbf151f63d&d1287db5fc7a3bc104a9c38124cdeb (AVNRich Token

source:BscScan.com



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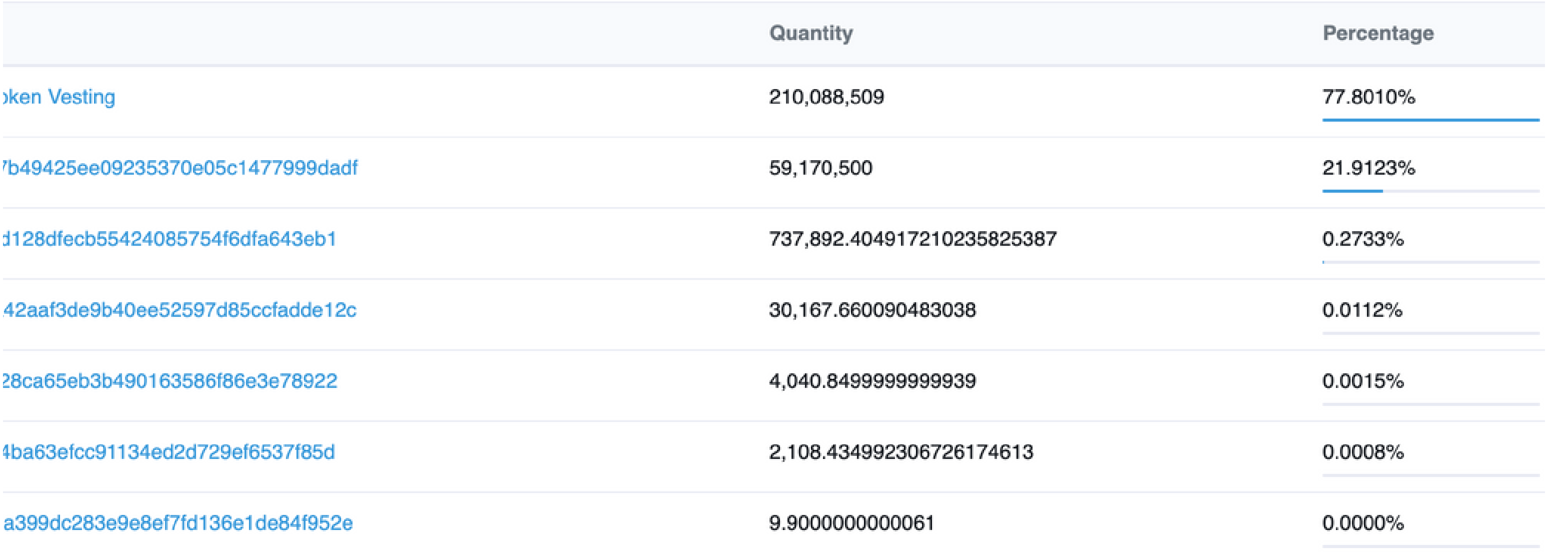
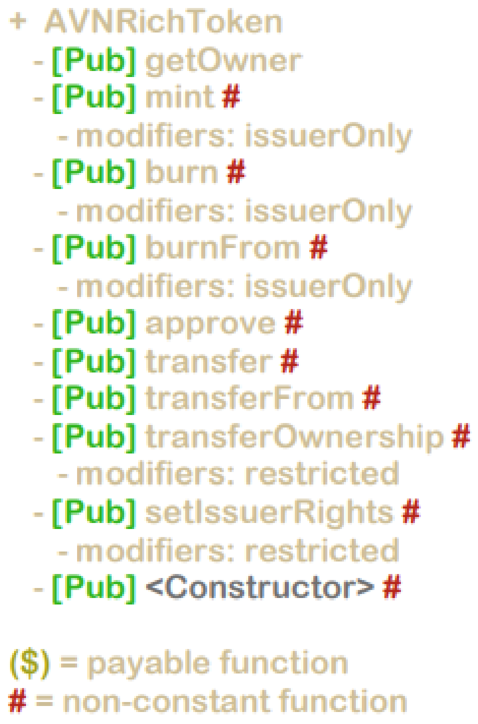
TOP 10 TOKEN HOLDERS



	Quantity	Percentage
oken Vesting	210,088,509	77.8010%
7b49425ee09235370e05c1477999dadf	59,170,500	21.9123%
d128dfecb55424085754f6dfa643eb1	737,892.404917210235825387	0.2733%
42aaf3de9b40ee52597d85ccfadde12c	30,167.660090483038	0.0112%
28ca65eb3b490163586f86e3e78922	4,040.8499999999939	0.0015%
4ba63efcc91134ed2d729ef6537f85d	2,108.434992306726174613	0.0008%
a399dc283e9e8ef7fd136e1de84f952e	9.9000000000061	0.0000%

source:etherscan.io

CONTRACT FUNCTIONS DETAILS



```
+ AVNRichToken
  - [Pub] getOwner
  - [Pub] mint #
    - modifiers: issuerOnly
  - [Pub] burn #
    - modifiers: issuerOnly
  - [Pub] burnFrom #
    - modifiers: issuerOnly
  - [Pub] approve #
  - [Pub] transfer #
  - [Pub] transferFrom #
  - [Pub] transferOwnership #
    - modifiers: restricted
  - [Pub] setIssuerRights #
    - modifiers: restricted
  - [Pub] <Constructor> #

($) = payable function
# = non-constant function
```

ISSUES CHECKING STATUS

	Issue description	Checking status
1.	Compiler errors.	Passed
2.	Race conditions and Reentrancy. Cross-function race conditions.	Passed
3.	Possible delays in data delivery.	Passed
4.	Oracle calls.	Passed
5.	Front running.	Passed
6.	Timestamp dependence.	Passed
7.	Integer Overflow and Underflow.	Passed
8.	DoS with Revert.	Passed
9.	DoS with block gas limit.	Passed
10.	Methods execution permissions.	Passed
11.	Economy model of the contract.	Passed
12.	The impact of the exchange rate on the logic.	Passed
13.	Private user data leaks.	Passed
14.	Malicious Event log.	Passed
15.	Scoping and Declarations.	Passed
16.	Uninitialized storage pointers.	Passed
17.	Arithmetic accuracy.	Passed
18.	Design Logic.	Passed
19.	Cross-function race conditions.	Passed
20.	Safe Open Zeppelin contracts implementation and usage.	Passed
21.	Fallback function security.	Passed

ISSUES CHECKING STATUS

✓ High Severity Issues

No high severity issues found.

✓ Medium Severity Issues

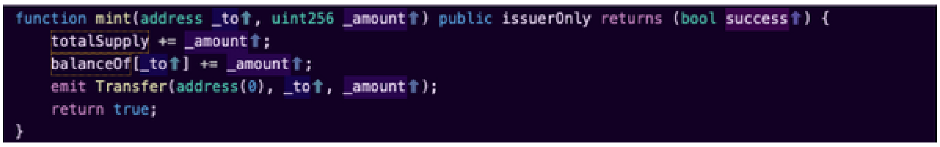
No medium severity issues found.

✓ Low Severity Issues

No low severity issues found.

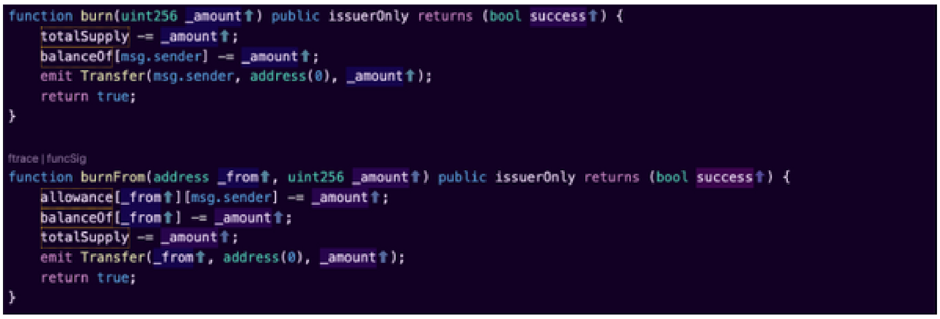
Owner privileges (In the period when the owner is not renounced)

- Issuer can mint any amount of tokens.



```
function mint(address _to, uint256 _amount) public issuerOnly returns (bool success) {
    totalSupply += _amount;
    balanceOf[_to] += _amount;
    emit Transfer(address(0), _to, _amount);
    return true;
}
```

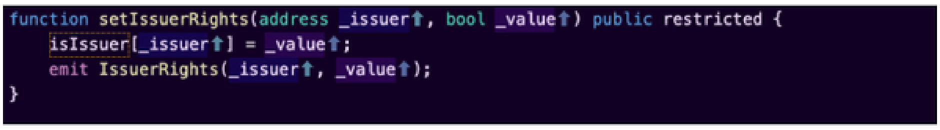
- Issuer can burn.



```
function burn(uint256 _amount) public issuerOnly returns (bool success) {
    totalSupply -= _amount;
    balanceOf[msg.sender] -= _amount;
    emit Transfer(msg.sender, address(0), _amount);
    return true;
}

ftrace | funcSig
function burnFrom(address _from, uint256 _amount) public issuerOnly returns (bool success) {
    allowance[_from][msg.sender] -= _amount;
    balanceOf[_from] -= _amount;
    totalSupply -= _amount;
    emit Transfer(_from, address(0), _amount);
    return true;
}
```

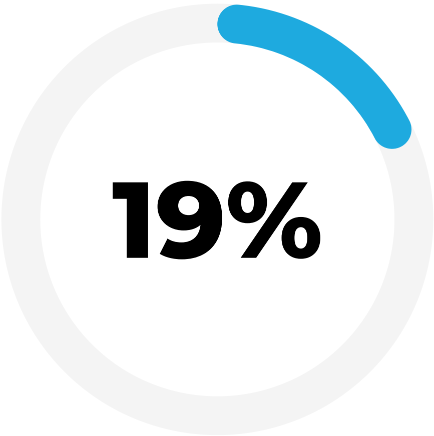
- Owner can edit issuers.



```
function setIssuerRights(address _issuer, bool _value) public restricted {
    isIssuer[_issuer] = _value;
    emit IssuerRights(_issuer, _value);
}
```

TOKEN LOGO

SECURITY SCORE



19 points. The contract doesn't have main safety functions implemented, and this is likely a rug pull. DYOR before investing. (ignore if the token is not yet listed).

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CONCLUSION

Smart contracts contain owner privileges!

Motech Audit note: Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.

Contact

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