



Radius

# Smart Contract Audit Report

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# AUDITED DETAILS

## Audited Project

Project name	Token ticker	Blockchain
Radius	RADI	Binance Smart Chain

## Addresses

Contract address	0xA7bAfb6bbB0D21354456599b8FbF849B2e63f3f0
Contract deployer address	0xEf860C501114ccb1A501dE14a93C703f9601e047

## Project Website

<https://theradius.finance/>

## Codebase

<https://bscscan.com/address/0xA7bAfb6bbB0D21354456599b8FbF849B2e63f3f0#code>

# SUMMARY

Radius Network aims to earn Interest, Borrowing and Lending Interest for its Investors. It has been in development for more than 10 months long term sustainability plan.

## Contract Summary

### Documentation Quality

Radius 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 Radius with the discovery of several low issues.

### Test Coverage

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

## Audit Findings Summary

### Issues Found

- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 10, 37, 122, 207, 237, 628 and 667.

## CONCLUSION

We have audited the Radius project which has released on January 2023 to discover issues and identify potential security vulnerabilities in Radius Project. This process is used to find technical issues and security loopholes that find some common issues in the code.

The security audit report produced satisfactory results with low-risk issues.

The most common issue found in writing code on contracts that do not pose a big risk, writing on contracts is close to the standard of writing contracts in general. The low level issue we found was that floating pragmas were set up on multiple lines.

# 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Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.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
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
Assert Violation	SWC-110	Properly functioning code should never reach a failing assert statement.	PASS
Deprecated Solidity Functions	SWC-111	Deprecated built-in functions should never be used.	PASS
Delegate call to Untrusted Caller	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
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
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





## SWC-103 | A FLOATING PRAGMA IS SET.

LINE 10

### low SEVERITY

The current pragma Solidity directive is ""^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

- RadiusToken.sol

### Locations

```
9
10  pragma solidity ^0.8.0;
11
12  /**
13   * @dev Provides information about the current execution context, including the
14
```

## SWC-103 | A FLOATING PRAGMA IS SET.

LINE 37

### low SEVERITY

The current pragma Solidity directive is ""^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

- RadiusToken.sol

### Locations

```
36
37  pragma solidity ^0.8.0;
38
39
40  /**
41
```

## SWC-103 | A FLOATING PRAGMA IS SET.

LINE 122

### low SEVERITY

The current pragma Solidity directive is ""^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

- RadiusToken.sol

### Locations

```
121
122  pragma solidity ^0.8.0;
123
124  /**
125   * @dev Interface of the ERC20 standard as defined in the EIP.
126
```

## SWC-103 | A FLOATING PRAGMA IS SET.

LINE 207

### low SEVERITY

The current pragma Solidity directive is ""^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

- RadiusToken.sol

### Locations

```
206
207  pragma solidity ^0.8.0;
208
209
210  /**
211
```

## SWC-103 | A FLOATING PRAGMA IS SET.

LINE 237

### low SEVERITY

The current pragma Solidity directive is ""^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

- RadiusToken.sol

### Locations

```
236  
237  pragma solidity ^0.8.0;  
238  
239  
240  
241
```

## SWC-103 | A FLOATING PRAGMA IS SET.

LINE 628

### low SEVERITY

The current pragma Solidity directive is ""^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

- RadiusToken.sol

### Locations

```
627
628  pragma solidity ^0.8.0;
629
630
631
632
```

## SWC-103 | A FLOATING PRAGMA IS SET.

LINE 667

### low SEVERITY

The current pragma Solidity directive is ""^0.8.9"". 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

- RadiusToken.sol

### Locations

```
666  
667  pragma solidity ^0.8.9;  
668  
669  
670  
671
```

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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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