Radius

Smart Contract Audit Report

SYSFIXED

27 Jan 2023

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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Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.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

SMART CONTRACT ANALYSIS

Started	Thursday Jan 26 2023 07:46:15 GMT+0000 (Coordinated Universal Time)
Finished	Friday Jan 27 2023 08:57:47 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	RadiusToken.sol

Detected Issues

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