TechRate
March, 2022

SMART CONTRACTS SECURITY AUDIT REPORT

Audit Details

Audited project

MaticRichSmartContract

Deployer address

0x0c385bb040a67a3a82f1a38ba345c54394ebd9f8

Client contacts:

MaticRichSmartContract team

Blockchain

Polygon

Project website:

https://maticrich.com

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

TechRate was commissioned by MaticRichSmartContract to perform an audit of smart contracts:
https://polygonscan.com/address/0xAB9f83ec57B45f4D5290C75599Fe3cdd6563B1e8#code

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.

Contracts Details

Token contract details for 29.03.2022

Contract name	MaticRichSmartContract
Contract address	0xAB9f83ec57B45f4D5290C75599Fe3cdd6563B1e8
Withdraw min amount	1000000000000000000
Contract balance rate	800
Base percent	800
Max contract percent	100
Percent divider	10000
Reinvest dev fee	800
Start date	1648908000
Contract deployer address	0x0c385bb040a67a3a82f1a38ba345c54394ebd9f8
Dev address	0x7d81393420e3f84f5c55035f071d832a3eecd0cd

Contract functions details

+ MaticRichSmartContract
  - [Pub] <Constructor> #
  - [Pub] getContractBalance
  - [Pub] getContractBalanceRate
  - [Pub] getCommunityBonusRate
  - [Pub] withdraw #
  - [Pub] quarter_withdraw #
  - [Pub] half_withdraw #
  - [Pub] getUserRates
  - [Pub] getUserPercentRate
  - [Pub] getUserAvailable
  - [Pub] invest ($)
  - [Pub] isActive
  - [Pub] getUserAmountOfDeposits
  - [Pub] getUserCheckpoint
  - [Pub] getUserCheckpointWithdraw
  - [Pub] getUserCheckpointReinvest
  - [Pub] getUserTotalDeposits
  - [Pub] getUserTotalActiveDeposits
  - [Pub] getUserTotalWithdrawn
  - [Pub] getUserDepositInfo
  - [Pub] getSiteStats
  - [Pub] getUserStats
  - [Pub] getUserReferralsStats
  - [Int] isContract

+ [Lib] SafeMath
  - [Int] add
  - [Int] sub
  - [Int] mul
  - [Int] div

($) = 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.**	Low issues
18.	**Design Logic.**	Passed
19.	**Cross-function race conditions.**	Passed
20.	**Safe Open Zeppelin contracts implementation and usage.**	Passed
21.	**Fallback function security.**	Passed

Security Issues

High Severity Issues

No high severity issues found.

Medium Severity Issues

No medium severity issues found.

Low Severity Issues

1. Rounding error

Issue:

- At some calculation with division, it goes first. In Solidity we don't have floating points, but instead we get rounding errors.

Recommendation:
Do division after multiplication.

Notes:

- Users can't withdraw amounts lower than ≈41% of withdrawn amount.
- reinvest_dFee not accounted in any amounts withdrawn.

Conclusion

Smart contracts contain low severity issues! The further transfers and operations with the funds raise are not related to this particular contract.

TechRate 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.