



# My Diamond Team Smart Contract Security Audit

<u>TechRate</u> February, 2022

## **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 My Diamond Team to perform an audit of smart contracts:

V2-TechRate-1.sol

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.

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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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# **Issues Checking Status**

Iss	sue description	Checking status
1. Co	ompiler errors.	Passed
	ace conditions and Reentrancy. Cross-function race onditions.	Passed
3. Po	ossible delays in data delivery.	Passed
4. Or	racle calls.	Passed
5. Fr	ont running.	Passed
6. Tii	mestamp dependence.	Passed
7. In	teger Overflow and Underflow.	Passed
8. Do	oS with Revert.	Passed
9. Do	oS with block gas limit.	Low issues
10. Me	ethods execution permissions.	Passed
11. Ec	conomy model of the contract.	Passed
12. Th	ne impact of the exchange rate on the logic.	Passed
13. Pr	rivate user data leaks.	Passed
14. Ma	alicious Event log.	Passed
15. Sc	coping and Declarations.	Passed
16. Ur	ninitialized storage pointers.	Passed
17. Ar	rithmetic accuracy.	Passed
18. De	esign Logic.	Passed
19. Cr	ross-function race conditions.	Passed
	afe Open Zeppelin contracts implementation and sage.	Passed
21. Fa	allback function security.	Passed

## **Security Issues**

High Severity Issues

No high severity issues found.

No medium severity issues found.

- Low Severity Issues
  - 1. Out of gas

#### Issue:

- The function teamAirdrop() and \_setUpline() uses the loop to iterate through team members list. Function will be aborted with OUT\_OF\_GAS exception if there will be a long team members list.
- The function \_checkNickname() and getAddressToNickname() uses the loop to iterate through all users list. It also could be aborted with OUT\_OF\_GAS exception if there will be a long users list.

#### Recommendation:

Check that the arrays length is not too big.

#### Notes:

- Reinvest() function has commented lines with using \_poolDeposits and \_downLineDeposits functions calling.
- The function V1Feed is external and could be called by any user to change another users' data.

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

- Owner can change ownership.
- Owner can change project and community addresses.
- Owner can change project, community, airdrop and referral percents.
- Owner can change reinvest bonus value.
- Owner can change MAX\_PAYOUT, AIRDROP\_MIN and MIN\_INVEST values.
- Owner can change max wallet deposit and max teams for address.
- Owner can change max nickname length and max pool balance.
- Owner can change BASE\_PERCENT value.
- Owner can enable/disable airdrop.

### Conclusion

Smart contracts contain low severity issues! Liquidity pair contract's security is not checked due to out of scope.

Liquidity locking details are NOT provided by the team.

#### 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.





