



WEBSITE

<https://aptoslaunch.io/>

DISCORD

<https://discord.gg/cC33ryfSx8>



# SMART CONTRACT AUDIT



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Vital Block Solidity Reports should not be used in any way to make decisions around investment or involvement with any project. These reports in no way provide investment advice, nor should be leveraged as investment advice of any sort. Vital Block Solidity Reports represent an extensive auditing process intending to help our customers increase the quality of their code while reducing the high level of risk presented by cryptographic tokens and blockchain technology.

Blockchain technology and cryptographic assets present a high level of ongoing risk. Vital Block Solidity’s position is that each company and individual are responsible for their own due diligence and continuous security. Vital Block Solidity’s goal is to help reduce the attack vectors and the high level of variance associated with utilizing new and consistently changing technologies, and in no way claims any guarantee of security or functionality of the technology we agree to analyse

## **What is a Vital Block Audit report?**

- A document describing in detail an in-depth analysis of a particular piece(s) of source code provided to Vital Block Solidity by a Client.
- An organized collection of testing results, analysis and inferences made about the structure, implementation, and overall best practices of a particular piece of source code.
- Representation that a Client of Vital Block Solidity has indeed completed a round of auditing with the intention to increase the quality of the company/ product’s IT infrastructure and or source code.

# Overview



## Project Summary

Project Name	APTOSLAUNCH
Description	COMMUNITY-DRIVEN LAUNCHPAD POWERING THE APTOS WEB 3.0 ECONOMY – EMPOWERING CRYPTO PROJECTS WITH THE ABILITY TO RAISE LIQUIDITY ON THE SAFEST AND MOST SCALABLE LAYER 1 BLOCKCHAIN.
Platform	APTOS NETWORK
Mainnet Address :	<b>0xc2551e38e8d2aaf71b6f8b69458e6ebe5d649d4014fb90e546c95a394ca1f2f7</b> *Token Sale* (Aptoslaunch)
Files:	Aptoslaunch.Move

## Audit Summary

Delivery Date	October 28 2022
Method of Audit	Security Static Analysis
Timeline	Story Points 100

## Vulnerability Summary

Total Issues Found	0
Total Issues Resolved	1
Total Critical	0
Total High	1
Total Medium	2
Total Low	0
Total Informational	3

## Our Audit Methodology

- **STEP 1**

A manual line-by-line code review to ensure the logic behind each function is safe and secured against common attack vectors.

- **STEP 2**

Simulation of hundreds of thousands of Smart Contract Interactions on a test and Mainnet blockchain using a combination of automated test tools and manual testing to determine if any security vulnerabilities exist.

- **STEP 3**

Consultation with the project team on the audit report pre-publication to implement recommendations and resolve any outstanding issues.

The following grading structure is used to assess the level of vulnerability found within all Smart Contracts:

THREAT LEVEL	DEFINITION
<b>Critical</b>	Severe vulnerabilities which compromise the entire protocol and could result in immediate data manipulation or asset loss.
<b>High</b>	Significant vulnerabilities which compromise the functioning of the smart contracts leading to possible data manipulation or asset loss.
<b>Medium</b>	Vulnerabilities which if not fixed within in a set timescale could compromise the functioning of the smart contracts leading to possible data manipulation or asset loss.
<b>Low</b>	Low level vulnerabilities which may or may not have an impact on the optimal performance of the Smart contract.
<b>Informational</b>	Issues related to coding best practice which do not have any impact on the functionality of the Smart Contracts

# Description



**APTOSLAUNCH :** AptosLaunch is the first decentralized launchpad on the Aptos Network. With Aptos building the safest and most scalable Layer 1 blockchain for the next billion users, AptosLaunch is engineered from the ground up to empower Aptos project owners.

**TOKEN NAME:** AptosLaunch Token

**Ticker:** ALT

**Chain/Standard:** Aptos Chain and Ethereum ERC20

**Max supply :** 100,000,000 ( ALT)



## STAY AHEAD. LAUNCH YOUR PROJECT WITH APTOSLAUNCH.

AptosLaunch is the first decentralized launchpad on the Aptos Network. With Aptos building the safest and most scalable Layer 1 blockchain for the next billion users, AptosLaunch is engineered from the ground up to empower Aptos project owners

BY OFFERING A STRATEGIZED TOKEN LAUNCH EXPERIENCE WITH CUSTOMIZED LAUNCH MODEL, TIME PERIOD, ACCEPTED TOKEN TYPES AND AUCTION ALGORITHMS. APTOSLAUNCH ONLY SUCCEEDS IF YOUR PROJECT SUCCEEDS.

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# APTOSLAUNCH REVIEW



**Vulnerability 0: No important security issue detected.**

**Threat level:** Low

## Description:

Not a honeypot transaction simulation is success at the moment. Always DYOR before investing.

INFO! There is no liquidity with Contract. Results with non-APT pair may differ. If the token is not live yet, results may be different once the token is live. It is common for tokens to have 0% taxes before launching on DEX!

**Vulnerability 1: The owner of this smart-contract can modify Contract.**

**Threat level:** Low

**Vulnerability 1:** Gas optimisation

**Threat level 3:** Informational

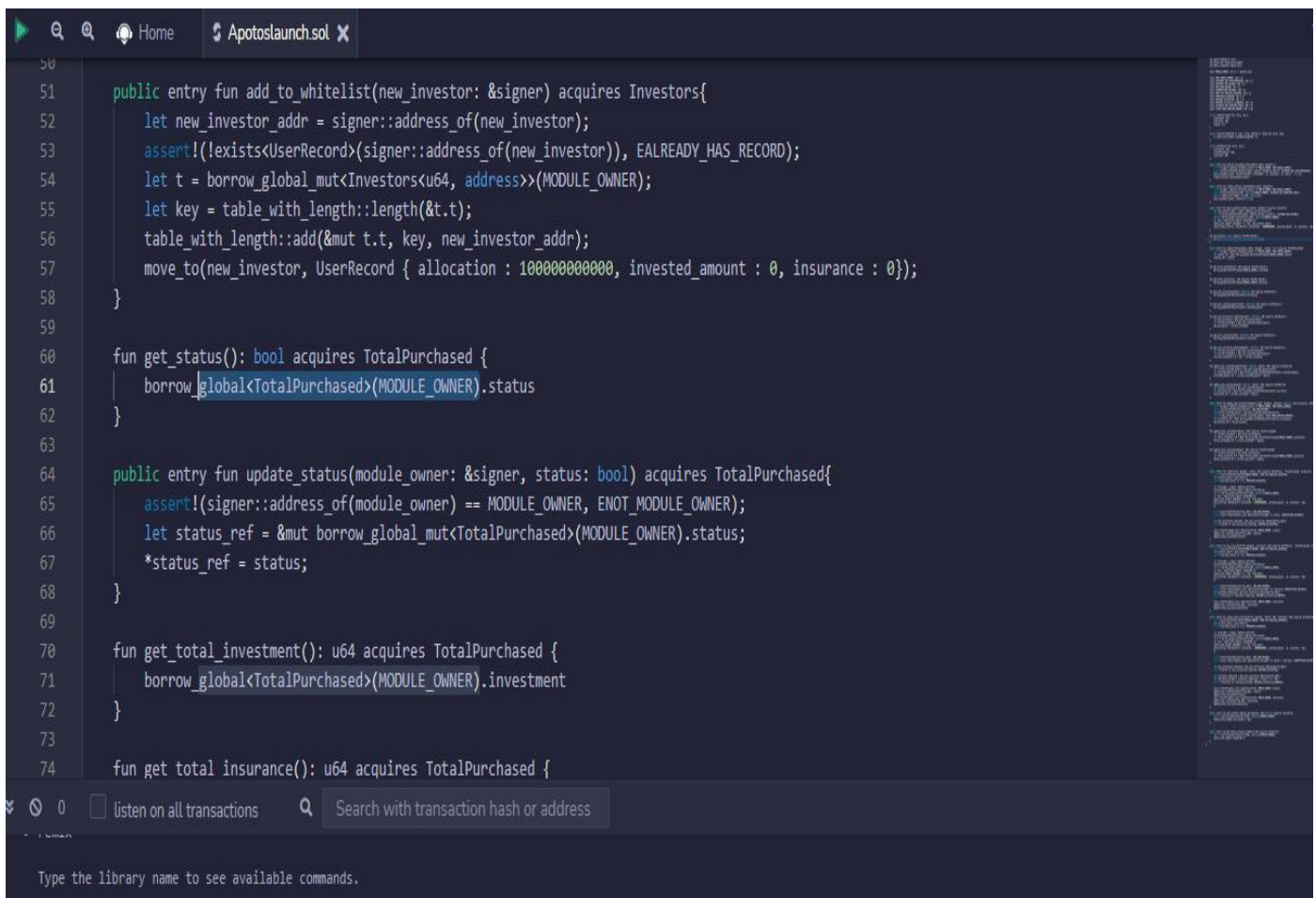
**Description: this smart-contract can be Modified by Deployer**

This can always change! Do your own due diligence.

INFO! Owner can't change trading tax fee. which is Really a normal function for most Smart Contract.

## APTOSLAUNCH (ALT)

No trading data available: either trading is disabled, or no Liquidity for the token Yet.



```
50
51 public entry fun add_to_whitelist(new_investor: &signer) acquires Investors{
52     let new_investor_addr = signer::address_of(new_investor);
53     assert!(!exists<UserRecord>(signer::address_of(new_investor)), EALREADY_HAS_RECORD);
54     let t = borrow_global_mut<Investors<u64, address>>(MODULE_OWNER);
55     let key = table_with_length::length(&t.t);
56     table_with_length::add(&mut t.t, key, new_investor_addr);
57     move_to(new_investor, UserRecord { allocation : 100000000000, invested_amount : 0, insurance : 0});
58 }
59
60 fun get_status(): bool acquires TotalPurchased {
61     borrow_global<TotalPurchased>(MODULE_OWNER).status
62 }
63
64 public entry fun update_status(module_owner: &signer, status: bool) acquires TotalPurchased{
65     assert!(signer::address_of(module_owner) == MODULE_OWNER, ENOT_MODULE_OWNER);
66     let status_ref = &mut borrow_global_mut<TotalPurchased>(MODULE_OWNER).status;
67     *status_ref = status;
68 }
69
70 fun get_total_investment(): u64 acquires TotalPurchased {
71     borrow_global<TotalPurchased>(MODULE_OWNER).investment
72 }
73
74 fun get_total_insurance(): u64 acquires TotalPurchased {
```



# APTOSLAUNCH REVIEW



**Vulnerability 0: All investor Funds can't be compromised on Dex**

**Threat level:** Low

**Vulnerability 0: Total Purchase**

**Threat level 0:** Informational

## **Description: User Record on Address insurance**

Info: The more ALT tokens a user has, the higher the tier the user is allocated to, the more lottery tickets the user can claim, the higher the allocation the user has.

## **APTOSLAUNCH (ALT)**

The actual sales of projects will run on a First Come First Serve (FCFS) basis for the whitelisted participants following the tiers.

```
170     move_to(from, UserRecord { allocation : 10000000000, invested_amount : 0, insurance : 0});
171 };
172
173     assert!(exists<UserRecord>(from_addr), ENO_USER_RECORD);
174     assert!(coin::balance<aptos_coin::AptosCoin>(from_addr) >= insurance, EINSUFFICIENT_BALANCE);
175     let insurance_remaining = get_user_insurance_remaining(from_addr);
176     assert!(insurance <= insurance_remaining, EEXCEED_insurance_ALLOWANCE);
177
178     coin::transfer<aptos_coin::AptosCoin>(from, MODULE_OWNER, insurance);
179     update_user_insurance(from_addr, insurance);
180     update_total_insurance(insurance);
181 }
182
183     public entry fun invest_with_insurance(from: &signer, invest: u64, insurance: u64) acquires UserRecord, TotalPurchased, Investors{
184         ....assert!(exists<TotalPurchased>(MODULE_OWNER), ENOT_YET_PUBLISH_LAUCHPAD);
185         let current_status = get_status();
186         assert!(current_status == true, EPURCHASE_DISABLED);
187
188         let from_addr = signer::address_of(from);
189         if(!exists<UserRecord>(signer::address_of(from))){
190             let t = borrow_global_mut<Investors<u64, address>>(MODULE_OWNER);
191             let key = table_with_length::length(&t.t);
192             table_with_length::add(&mut t.t, key, from_addr);
193             move_to(from, UserRecord { allocation : 10000000000, invested_amount : 0, insurance : 0});
```

# Conclusion

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During the Vital block Audit process, the Aptoslaunch contract was analysed by manual review and automated testing. All issues identified was after deployment to mainnet. By submitting the contract for audit after Deployment, the team have displayed a strong commitment to security.

Whilst there are no obvious vulnerabilities or security risks identified within the main net contract, it is beyond the scope of this Vital Block Audit to comment upon any risks associated with tokenomics, adoption or platform longevity. Before placing funds in any defi protocol Vital Block encourages potential investors to exercise due diligence and research all projects thoroughly to assess plans for ongoing development and financial sustainability.

## Issues Checking Status

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



**Audit Result**  
**PASSED**

# Conclusion

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## Finding Categories

### Gas Optimization

Gas Optimization findings refer to exhibits that do not affect the functionality of the code but generate different, more optimal EVM opcodes resulting in a reduction on the total gas cost of a transaction.

### Mathematical Operations

Mathematical Operation exhibits entail findings that relate to mishandling of math formulas, such as overflows, incorrect operations etc.

### Logical Issue

Logical Issue findings are exhibits that detail a fault in the logic of the linked code, such as an incorrect notion on how `block.timestamp` works.

### Control Flow

Control Flow findings concern the access control imposed on functions, such as owner-only functions being invoke-able by anyone under certain circumstances.

### Volatile Code

Volatile Code findings refer to segments of code that behave unexpectedly on certain edge cases that may result in avulnerability.

### Data Flow

Data Flow findings describe faults in the way data is handled at rest and in memory, such as the result of a structassignment operation affecting an in-memory struct rather than an instorage one.

### Language Specific

Language Specific findings are issues that would only arise within Solidity, i.e. incorrect usage of `private` or `delete`.

### Coding Style

Coding Style findings usually do not affect the generated byte-code and comment on how to make the codebase more legible and as a result easily maintainable.

## Inconsistency

Inconsistency findings refer to functions that should seemingly behave similarly yet contain different code, such as a constructor assignment imposing different require statements on the input variables than a setter function.

## Magic Numbers

Magic Number findings refer to numeric literals that are expressed in the codebase in their raw format and should otherwise be specified as constant contract variables aiding in their legibility and maintainability.

## Compiler Error

Compiler Error findings refer to an error in the structure of the code that renders it impossible to compile using the specified version of the project.

## Dead Code

Code that otherwise does not affect the functionality of the codebase and can be safely omitted.

# VitalBlock

Making Defi And Web3 a Safer place



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Decentralized Smart Contract Auditing Firm.