



# SOLIDProof

*Bring trust into your projects*

**Blockchain Security | Smart Contract Audits | KYC  
Development | Marketing**

MADE IN GERMANY

# OnePiece

# AUDIT

SECURITY ASSESSMENT

13. July, 2023

FOR



[SolidProof.io](https://solidproof.io)



[@solidproof\\_io](https://t.me/solidproof_io)



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## Introduction

[SolidProof.io](#) is a brand of the officially registered company MAKE Network GmbH, based in Germany. We're mainly focused on Blockchain Security such as Smart Contract Audits and KYC verification for project teams.

Solidproof.io assess potential security issues in the smart contracts implementations, review for potential inconsistencies between the code base and the whitepaper/documentation, and provide suggestions for improvement.

## Disclaimer

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SolidProof.io 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. SolidProof's position is that each company and individual are responsible for their own due diligence and continuous security. SolidProof in no way claims any guarantee of the security or functionality of the technology we agree to analyze.

# Project Overview

## Summary

Project Name	OnePiece
Website	<a href="https://www.onepiecetoken.online/">https://www.onepiecetoken.online/</a>
About the project	Onepiece is an anime of onepiece based token from the Binance smart chain network that will feature a blockchain-based nft game for hunting and adventure lovers. Players will be able to customize their fighters with a variety of items. Our team wants to provide a platform where everyone can decide the future of the token for the community. It is completely community oriented and can only grow with the help of the owners.
Chain	BSC
Language	Solidity
Codebase	<a href="https://bscscan.com/token/0x9701bba55851753b1e3bb4c8ef4efea845a51fde#code">https://bscscan.com/token/0x9701bba55851753b1e3bb4c8ef4efea845a51fde#code</a>
Commit	N/A

## Social Medias

Telegram	N/A
Twitter	<a href="https://twitter.com/onepiecetokenf">https://twitter.com/onepiecetokenf</a>
Facebook	N/A
Instagram	N/A
GitHub	N/A
Reddit	N/A
Medium	N/A
Discord	N/A
YouTube	N/A
TikTok	N/A
LinkedIn	N/A



## Audit Summary

Version	Delivery Date	Change Log
v1.0	12. July 2023	<ul style="list-style-type: none"> <li>· Layout Project</li> <li>· Automated/ Manual-Security Testing</li> <li>· Summary</li> </ul>
v1.1	13. July 2023	<ul style="list-style-type: none"> <li>· Reaudit</li> </ul>

**Note** - This Audit report consists of a security analysis of the **OnePiece** smart contract. This analysis did not include functional testing (or unit testing) of the contract's logic.



## File Overview

The Team provided us with the files that should be tested in the security assessment. This audit covered the following files listed below with an SHA-1 Hash.

File Name	SHA-1 Hash
contracts/onepiecefantoken.sol	96719f68dff504ae93baae11fb74ccb4a5affa74

*Please note: Files with a different hash value than in this table have been modified after the security check, either intentionally or unintentionally. A different hash value may (but need not) be an indication of a changed state or potential vulnerability that was not the subject of this scan.*

## Imported Packages

*Used code from other Frameworks/Smart Contracts (direct imports).*

```
> IERC20
> IFactory
> IRouter
> IAuthError
> ICommonError
> IDividendDistributor
> Auth
> DividendDistributor
```

**Note for Investors:** We only Audited a simple dividend contract for **OnePiece**. However, If the project has other contracts (for example, a Presalecontract etc), and they were not provided to us in the audit scope, then we cannot comment on its security and are not responsible for it in any way.

## Audit Information

### Vulnerability & Risk Level

Risk represents the probability that a certain source threat will exploit the vulnerability and the impact of that event on the organization or system. The risk level is computed based on CVSS version 3.0.

Level	Value	Vulnerability	Risk (Required Action)
<b>Critical</b>	9 - 10	A vulnerability that can disrupt the contract functioning in a number of scenarios, or creates a risk that the contract may be broken.	Immediate action to reduce risk level.
<b>High</b>	7 - 8.9	A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.	Implementation of corrective actions as soon as possible.
<b>Medium</b>	4 - 6.9	A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.	Implementation of corrective actions in a certain period.
<b>Low</b>	2 - 3.9	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.	Implementation of certain corrective actions or accepting the risk.
<b>Informational</b>	0 - 1.9	A vulnerability that have informational character but is not effecting any of the code.	An observation that does not determine a level of risk



## Auditing Strategy and Techniques Applied

Throughout the review process, care was taken to check the repository for security-related issues, code quality, and compliance with specifications and best practices. To this end, our team of experienced pen-testers and smart contract developers reviewed the code line by line and documented any issues discovered.

We check every file manually. We use automated tools only so that they help us achieve faster and better results.

## Methodology

The auditing process follows a routine series of steps:

1. Code review that includes the following:
  - a. Reviewing the specifications, sources, and instructions provided to SolidProof to ensure we understand the size, scope, and functionality of the smart contract.
  - b. Manual review of the code, i.e., reading the source code line by line to identify potential vulnerabilities.
  - c. Comparison to the specification, i.e., verifying that the code does what is described in the specifications, sources, and instructions provided to SolidProof.
2. Testing and automated analysis that includes the following:
  - a. Test coverage analysis determines whether test cases cover code and how much code is executed when those test cases are executed.
  - b. Symbolic execution, which is analysing a program to determine what inputs cause each part of a program to execute.
3. Review best practices, i.e., review smart contracts to improve efficiency, effectiveness, clarity, maintainability, security, and control based on best practices, recommendations, and research from industry and academia.
4. Concrete, itemized and actionable recommendations to help you secure your smart contracts.





## Overall Security

### Medium or higher issues

**No critical Issues found**

 **Contract is safe to deploy**

Description	The contract does not contain issues of high or medium criticality. This means that no known vulnerabilities were found in the sourcecode.
-------------	--

Comment	N/A
---------	-----





## Upgradeability

### Contract is not an upgradable



**Deployer cannot update the contract with new functionalities.**

Description

The contract is not an upgradeable contract. The Deployer is not able to change or add any functionalities to the contract after deploying.

Comment

N/A

## Ownership

**The ownership is not renounced**

**The owner is not renounce.**

Description

The owner has not renounced the ownership that means that the owner retains control over the contract's operations, including the ability to execute functions that may impact the contract's users or stakeholders. This can lead to several potential issues, including:

- Centralizations
- The owner has significant control over contract's operations.

Example	N/A
Comment	N/A

**Note** – *The contract cannot be considered as renounced till it is not deployed or having some functionality that can change the state of the contract.*



## Ownership Privileges

*These functions can be dangerous. Please note that abuse can lead to financial loss. We have a guide where you can learn more about these Functions.*

### Minting tokens

*Minting tokens refer to the process of creating new tokens in a cryptocurrency or blockchain network. This process is typically performed by the project's owner or designated authority, who has the ability to add new tokens to the network's total supply.*

**Contract owner cannot mint new tokens**

 **The owner cannot mint new tokens**

Description	The owner is not able to mint new tokens once the contract is deployed.
Comment	N/A



## Burning tokens

*Burning tokens is the process of permanently destroying a certain number of tokens, reducing the total supply of a cryptocurrency or token. This is usually done to increase the value of the remaining tokens, as the reduced supply can create scarcity and potentially drive up demand.*

### Contract owner cannot burn tokens



**The owner cannot burn tokens**

Description

The owner is not able burn tokens without any allowances.

Comment

N/A



## Blacklist addresses

*Blacklisting addresses in smart contracts is the process of adding a certain address to a blacklist, effectively preventing them from accessing or participating in certain functionalities or transactions within the contract. This can be useful in preventing fraudulent or malicious activities, such as hacking attempts or money laundering.*

### Contract owner cannot blacklist addresses

 **The owner cannot blacklist addresses**

Description

The owner is not able blacklist addresses to lock funds.

Comment

N/A



## Fees and Tax

*In some smart contracts, the owner or creator of the contract can set fees for certain actions or operations within the contract. These fees can be used to cover the cost of running the contract, such as paying for gas fees or compensating the contract's owner for their time and effort in developing and maintaining the contract.*

### Contract owner cannot set fees more than 25%



**The owner cannot set fees more than 25%.**

Description

The owner is not able to set the fees above 25%.

Comment

N/A

## Lock User Funds

*In a smart contract, locking refers to the process of restricting access to certain tokens or assets for a specified period of time. When token or assets are locked in a smart contract, they cannot be transferred or used until the lock-up period has expired or certain conditions have been met.*

### Owner cannot lock the contract

 **The owner cannot lock the contract.**

Description

The owner is not able to lock the contract by any functions or updating any variables.

Comment

N/A





## External/Public functions

External/public functions are functions that can be called from outside of a contract, i.e., they can be accessed by other contracts or external accounts on the blockchain. These functions are specified using the function declaration's external or public visibility modifier.

## State variables


State variables are variables that are stored on the blockchain as part of the contract's state. They are declared at the contract level and can be accessed and modified by any function within the contract. State variables can be needed within visibility modifier, such as public, private or internal, which determines the access level of the variable.

## Components

 <b>Contracts</b>	 <b>Libraries</b>	 <b>Interfaces</b>	 <b>Abstract</b>
2	0	6	1


## Exposed Functions

This section lists functions that are explicitly declared public or payable. Please note that getter methods for public stateVars are not included.

 <b>Public</b>	 <b>Payable</b>
79	3





External	Internal	Private	Pure	View
67	107	0	5	19

## StateVariables

<b>Total</b>	 <b>Public</b>
59	50



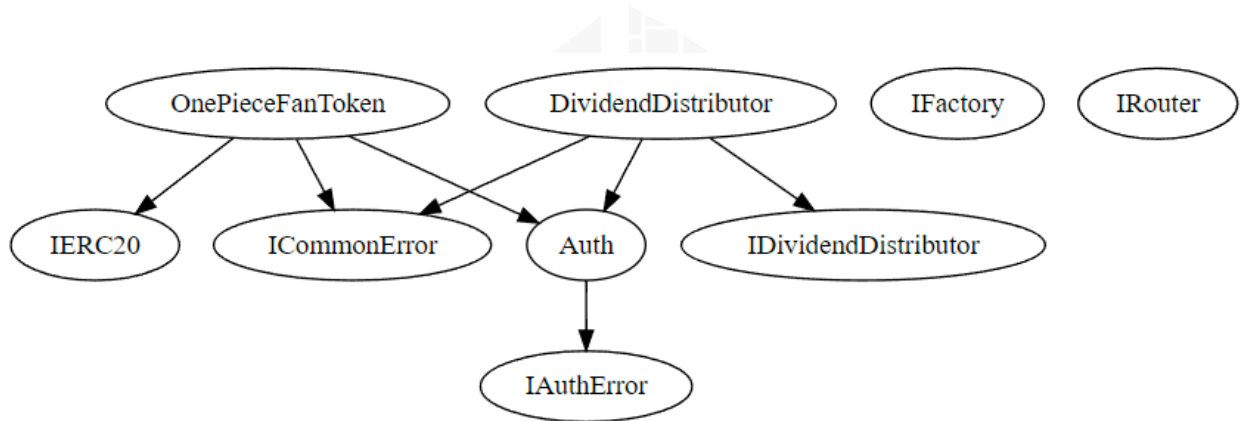
## Capabilities

Solidity Versions observed	 Experimental Features	 Can Receive Funds	 Uses Assembly	 Has Destroyable Contracts
0.8.18		yes	-----	

 Transfers ETH	 Low - Level Calls	 Delegate Call	 Uses Hash Functions	 ECREcover	 New/Create/Create2
yes	----- -	----- --	----- -	-----	yes → NewContract:DividendDistributor

## Inheritance Graph

An inheritance graph is a graphical representation of the inheritance hierarchy among contracts. In object-oriented programming, inheritance is a mechanism that allows one class (or contract, in the case of Solidity) to inherit properties and methods from another class. It shows the relationships between different contracts and how they are related to each other through inheritance.



## Centralization Privileges

*Centralization can arise when one or more parties have privileged access or control over the contract's functionality, data, or decision-making. This can occur, for example, if the contract is controlled by a single entity or if certain participants have special permissions or abilities that others do not.*

In the project, there are authorities that have access to the following functions:

File	Privileges
<b>onepiecefantoken.sol</b>	<ul style="list-style-type: none"> <li>➤ The owner can enable trading only once.</li> <li>➤ The owner can lock fees only once i.e., no more updating on buy and sell fees.</li> <li>➤ The owner can approve/reset router and distributor address to spend reward tokens.</li> <li>➤ The owner can update router address.</li> <li>➤ The owner can update minimum swap not less than 100 tokens.</li> <li>➤ The owner can update the distribution gas fees between 10000 to 75000.</li> <li>➤ The owner can update buy/sell/transfer fees not more than 10%.</li> <li>➤ The authorized address can update the marketing fee receiver wallet address.</li> <li>➤ The authorized addresses can enable presale only once.</li> <li>➤ The authorized address can update the fees status as inactive and active.</li> <li>➤ The authorized addresses can enable and disable swapping.</li> <li>➤ The authorized addresses can set the presale factory/address.</li> <li>➤ The authorized addresses can whitelist wallets from fees.</li> <li>➤ The authorized addresses can exempt wallets from dividends.</li> <li>➤ The authorized addresses can set the min distribution to zero.</li> <li>➤ The authorized addresses can buy back not more than 5 tokens at a time.</li> </ul>



- The authorized address can set max continuous distribution to zero.

## Recommendations

To avoid potential hacking risks, it is advisable for the client to manage the private key of the privileged account with care. Additionally, we recommend enhancing the security practices of centralized privileges or roles in the protocol through a decentralized mechanism or smart-contract-based accounts, such as multi-signature wallets.

Here are some suggestions of what the client can do:

- Consider using multi-signature wallets: Multi-signature wallets require multiple parties to sign off on a transaction before it can be executed, providing an extra layer of security e.g. Gnosis Safe
- Use of a timelock at least with a latency of e.g. 48-72 hours for awareness of privileged operations
- Introduce a DAO/Governance/Voting module to increase transparency and user involvement
- Consider Renouncing the ownership so that the owner cannot modify any state variables of the contract anymore. Make sure to set up everything before renouncing.

## Audit Result

### #1| Authorized address can buy back any number of tokens

File	Severity	Location	Status
onepiecefantoken.sol	Low	L1006-1008	Fixed

#### Description

- There must be a require check where the owner cannot buy the number of tokens more than that threshold at a time.

### #2| Dividend distributor address can be changed.

File	Severity	Location	Status
onepiecefantoken.sol	Low	L847-858	Fixed

#### Description

- It is recommended that the dividend distributor address must be constant after the initial deployment.

### #3| Dividend distributor gas can be set to zero.

File	Severity	Location	Status
onepiecefantoken.sol	Low	L840-845	Fixed

#### Description

- It is recommended that the gas must be within a certain threshold of the minimum and maximum distribution gas.

### #4| Minimum swap threshold can be set to zero.

File	Severity	Location	Status
onepiecefantoken.sol	Low	L833-838	Fixed

#### Description

- It is recommended that the minimum swap threshold amount must not be zero.

## #5| Owner can set any number on minimum distribution.

File	Severity	Location	Status
onepiecefantoken.sol	Low	L325-327	Open

### Description

- It is recommended that the minimum distribution value not be so high that the dividend for the token will not be sent.

## #6| Owner can set zero on max continuous distribution.

File	Severity	Location	Status
onepiecefantoken.sol	Low	L310-316	Open

### Description

- It is not recommended to add zero on the max continuous distribution of dividend the value must be greater than zero.

## #7| NatSpec Documentation missing

File	Severity	Location	Status
onepiecefantoken.sol	Informational	-	ACK

### Description

- If you started to comment on your code, also comment on all other functions, variables, etc.



## Legend for the Issue Status

Attribute or Symbol	Meaning
<b>Open</b>	The issue is not fixed by the project team.
<b>Fixed</b>	The issue is fixed by the project team.
<b>Acknowledged(ACK)</b>	The issue has been acknowledged or declared as part of business logic.







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