

Blockchain Security | Smart Contract Audits | KYC

MADE IN GERMANY

Fat Cat Killer

Audit

Security Assessment 21. May, 2022

For



Disclaimer	3
Description	5
Project Engagement	5
Logo	5
Contract Link	5
Methodology	7
Used Code from other Frameworks/Smart Contracts (direct imports)	8
Tested Contract Files	9
Source Lines	10
Risk Level	10
Capabilities	11
Inheritance Graph	12
CallGraph	13
Scope of Work/Verify Claims	14
Modifiers and public functions	20
Source Units in Scope	22
Critical issues	23
High issues	23
Medium issues	23
Low issues	23
Informational issues	23
Audit Comments	24
SWC Attacks	25

Disclaimer

<u>SolidProof.io</u> reports are not, nor should be considered, an "endorsement" or "disapproval" of any particular project or team. These reports are not, nor should be considered, an indication of the economics or value of any "product" or "asset" created by any team. SolidProof.io do not cover testing or auditing the integration with external contract or services (such as Unicrypt, Uniswap, PancakeSwap etc'...)

SolidProof.io Audits do not provide any warranty or guarantee regarding the absolute bug- free nature of the technology analyzed, nor do they provide any indication of the technology proprietors. SolidProof Audits should not be used in any way to make decisions around investment or involvement with any particular project. These reports in no way provide investment advice, nor should be leveraged as investment advice of any sort.

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 security or functionality of the technology we agree to analyze.

Version	Date	Description
1.0	21. May 2022	Layout projectAutomated-/Manual-Security TestingSummary

Network

Binance Smart Chain (BEP20)

Website

https://fatcatkiller.com/

Telegram

https://t.me/FatCatKillerPortal

Twitter

https://twitter.com/Fat_Cat_Killer

Facebook

https://www.facebook.com/FatCatKiller

Instagram

https://www.instagram.com/fatcatkillercoin/

Reddit

https://www.reddit.com/r/FatCatKiller/

Discord

https://discord.gg/vwN7kn9H27

Youtube

https://www.youtube.com/channel/UCTs0O5_wVvuvLjBrIT6ejsw

TikTok

https://vm.tiktok.com/ZTdmEqj2J/

LinkedIn

https://www.linkedin.com/company/fatcatkiller

Description

Fat Cat Killer is simply the best medium for merchant payment processing.

It supports all the ideological principles of crypto world: anonymity, speed, spanning across boarder, less governmental and financial institution control. While handling payments for luxury items and entertainment. Fat Cat Killer will provide unique benefits and access to its users and holders, at the same time directing a portion of its transaction fee to global charities, to give opportunity to those afflicted by income inequality.

Project Engagement

During the 5th of May 2022, **Fat Cat Killer Team** engaged Solidproof.io to audit smart contracts that they created. The engagement was technical in nature and focused on identifying security flaws in the design and implementation of the contracts. They provided Solidproof.io with access to their code repository and whitepaper.





Contract Link v1.0

 https://bscscan.com/address/ 0xE0b1EF69BC4AB4173989C1190f0d77A813f3B726#code

Vulnerability & Risk Level

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

Level	Value	Vulnerability	Risk (Required Action)
Critical	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.
High	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 aspossible.
Medium	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.
Low	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.
Informational	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 evaluate the repository for security-related issues, code quality, and adherence to specification and best practices. To do so, reviewed line-by-line by our team of expert pentesters and smart contract developers, documenting any issues as there were discovered.

Methodology

The auditing process follows a routine series of steps:

- 1. Code review that includes the following:
 - i) Review of the specifications, sources, and instructions provided to SolidProof to make sure we understand the size, scope, and functionality of the smart contract.
 - ii) Manual review of code, which is the process of reading source code line-byline in an attempt to identify potential vulnerabilities.
 - iii) Comparison to specification, which is the process of checking whether the code does what the specifications, sources, and instructions provided to SolidProof describe.
- 2. Testing and automated analysis that includes the following:
 - i) Test coverage analysis, which is the process of determining whether the test cases are actually covering the code and how much code is exercised when we run those test cases.
 - ii) Symbolic execution, which is analysing a program to determine what inputs causes each part of a program to execute.
- 3. Best practices review, which is a review of the smart contracts to improve efficiency, effectiveness, clarify, maintainability, security, and control based on the established industry and academic practices, recommendations, and research.
- 4. Specific, itemized, actionable recommendations to help you take steps to secure your smart contracts.

Used Code from other Frameworks/Smart Contracts (direct imports)

Imported packages:



Tested Contract Files

This audit covered the following files listed below with a SHA-1 Hash.

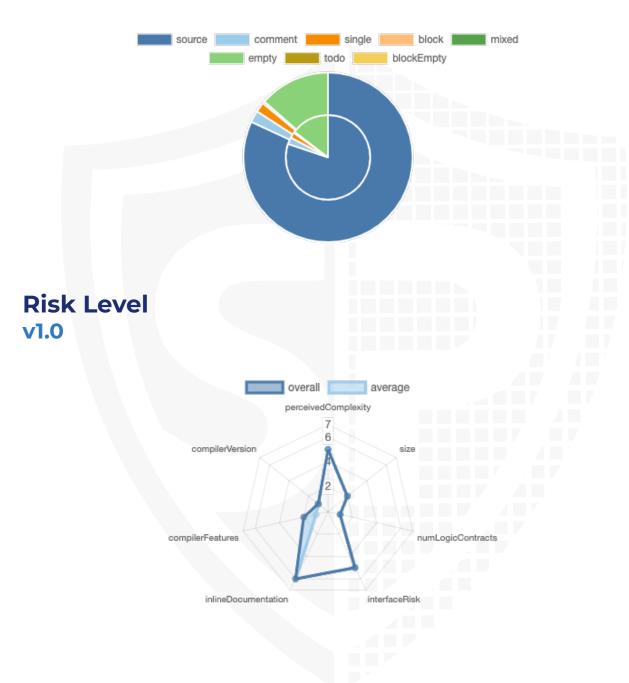
A file with a different Hash has been modified, intentionally or otherwise, after the security review. A different Hash could be (but not necessarily) an indication of a changed condition or potential vulnerability that was not within the scope of this review.

v1.0

File Name	SHA-1 Hash
contracts/FatCatKiller.sol	20ee222ee810c649981404e4352c3330fdf705d1

Metrics

Source Lines v1.0



Capabilities

Components

Version	Contracts	Libraries	Interfaces	Abstract
1.0	1	0	6	0

Exposed Functions

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

Ve	rsion	n Public Payabl	
1.0		74	5

Version	External	Internal	Private	Pure	View
1.0	66	55	0	5	24

State Variables

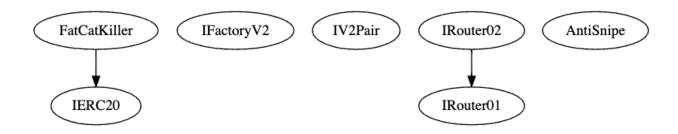
Version	Total Public	
1.0	42	23

Capabilities

Version	Solidity Versions observed	Experim ental Features	Can Receive Funds	Uses Assembl Y	Has Destroya ble Contract s
1.0	>=0.6. 0 <0.9.0		yes		

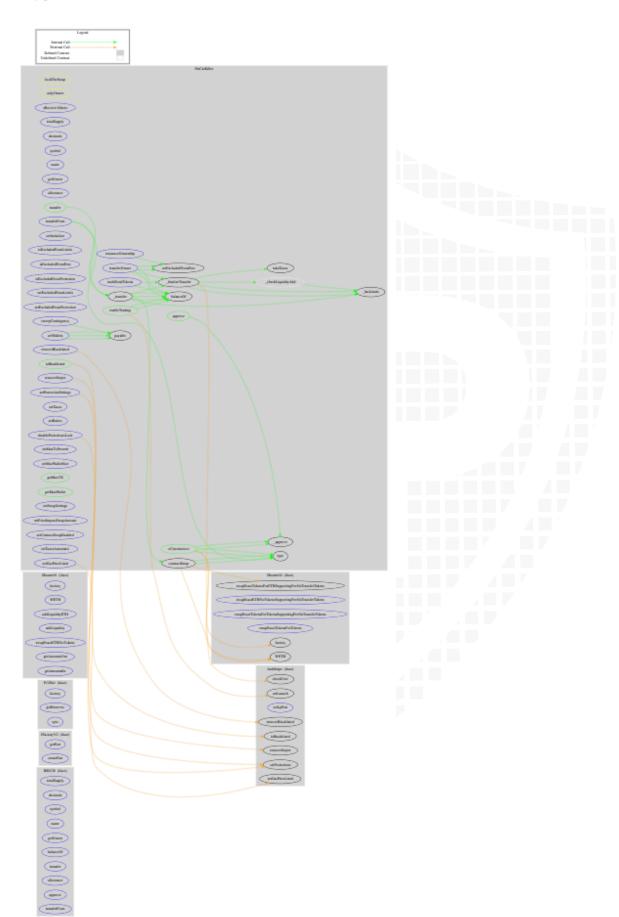
Version	Transfer s ETH	Low- Level Calls	Deleg ateCa II	Uses Hash Function s	EC Rec ove r	New/ Create/ Create2	
1.0	yes						

Inheritance Graph v1.0



CallGraph

v1.0



Scope of Work/Verify Claims

The above token Team provided us with the files that needs to be tested (Github, Bscscan, Etherscan, files, etc.). The scope of the audit is the main contract (usual the same name as team appended with .sol).

We will verify the following claims:

- 1. Correct implementation of Token standard
- 2. Deployer cannot mint any new tokens
- 3. Deployer cannot burn or lock user funds
- 4. Deployer cannot pause the contract
- 5. Overall checkup (Smart Contract Security)

Correct implementation of Token standard

	ERC20							
Function	Function Description							
TotalSupply	Provides information about the total token supply	√	✓	\checkmark				
BalanceOf	Provides account balance of the owner's account	\checkmark	√	\checkmark				
Transfer	Executes transfers of a specified number of tokens to a specified address	√	√	√				
TransferFrom	Executes transfers of a specified number of tokens from a specified address	√	√	√				
Approve	Allow a spender to withdraw a set number of tokens from a specified account	√	√	√				
Allowance	Returns a set number of tokens from a spender to the owner	√	√	√				

Write functions of contract v1.0

transferOwner

renounceOwnership

transfer

approve

transferFrom

setInitializer

setExcludedFromLimits

setExcludedFromFees

setExcludedFromProtection

removeBlacklisted

removeSniper

setProtectionSettings

disableProtectionsLock

setGasPriceLimit

setTaxes

setRatios

setWallets

setMaxTxPercent

setMaxWalletSize

setSwapSettings

setPriceImpactSwapAmount

setContractSwapEnabled

setTaxesAutomatic

enableTrading

sweepContingency

multiSendTokens

Deployer cannot mint any new tokens

Name	Exist	Tested	Status
Deployer cannot mint	√	√	√



Deployer cannot burn or lock user funds

Name	Exist	Tested	Status
Deployer cannot lock	\checkmark	√	
Deployer cannot burn	√	√	\checkmark

Comments:

v1.0

- Tokens
 - · will be burned while tx
- · Owner can send tokens to address
- Antisnipe contract was not provided to solidproof. Please do your own research here
 - · It is possible, that the anti snipe contract can lock user funds
- Antisnipe can blacklist addresses

Deployer cannot pause the contract

Name	Exist	Tested	Status
Deployer cannot pause	-	_	-



Overall checkup (Smart Contract Security)

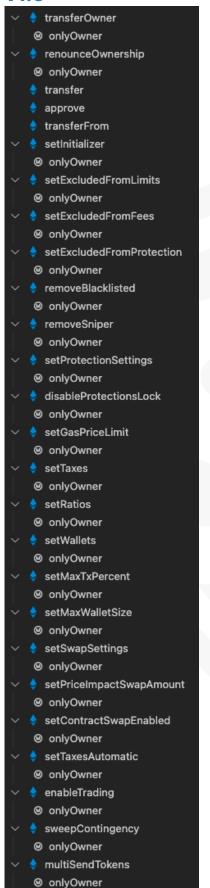


Legend

Attribute	Symbol
Verfified / Checked	\checkmark
Partly Verified	P
Unverified / Not checked	X
Not available	-

Modifiers and public functions

v1.0



Information: Not listed functions/modifiers etc. are from libraries

Comments

- · Deployer can set following state variables without any limitations
 - swapThreshold
 - swapAmount
 - _ratios.burn
 - _ratios.marketing
 - _ratios.operations
 - _ratios.charity
 - _ratios.totalSwap
- Deployer can enable/disable following state variables
 - tradingEnabled
 - · Can be set once
 - taxesAutomatic
 - contractSwapEnabled
 - piContractSwapsEnabled
 - _isExcludedFromProtection
 - isExcludedFromFees
 - isExcludedFromLimits
- Deployer can set following addresses
 - _taxWallets.marketing
 - _taxWallets.operations
 - _taxWallets.charity
 - antiSnipe
 - Cannot set address(this) to antisnipe, but if antisnipe is zero it will automatically set to address(this) which causes issues in the behaviour of the contract
- Existing Modifiers
 - lockTheSwap
 - onlyOwner
- Owner can
 - send tokens to specific addresses
 - · Transfer address balance to owner address
- If the antisnipe is set to contract address itself, it will revert every tx where anti snipe is used in

Please check if an OnlyOwner or similar restrictive modifier has been forgotten.

Source Units in Scope

v1.0

Ту	pe	File	Logic Contracts	Interfaces	Lines	nLines	nSLOC	Comment Lines	Complex. Score	Capabilities
0	Q	contracts/FatCatKiller.sol	1	6	685	594	489	16	469	. <u>Š</u> .
0	Q	Totals	1	6	685	594	489	16	469	. <u>Š</u> .

Legend

Attribute	Description
Lines	total lines of the source unit
nLines	normalized lines of the source unit (e.g. normalizes functions spanning multiple lines)
nSLOC	normalized source lines of code (only source-code lines; no comments, no blank lines)
Comment Lines	lines containing single or block comments
Complexity Score	a custom complexity score derived from code statements that are known to introduce code complexity (branches, loops, calls, external interfaces,)

Audit Results

AUDIT PASSED

Critical issues

No critical issues

High issues

No high issues

Medium issues

No medium issues

Low issues

Issue	File	Type	Line	Description
#1	Main	A floating pragma is set	6	The current pragma Solidity directives are floating pragmas.
#2	Main	Missing Events Arithmetic	412 415 423 426 446 439 440	Emit an event for critical parameter changes
#3	Main	State variable visibility is not set	111, 179, 195	It is best practice to set the visibility of state variables explicitly

Informational issues

Issue	File	Type	Line	Description
#1	Main	Unused state variables	112	Remove unused state variables

#2	Main	Low level calls	544, 547, 550	Check the call success
#3	Main	Be aware of 0 value	390	If _ratios.totalSwap is 0, the contractSwap function will fail because of division by 0 in L540, L541

Audit Comments

We recommend you to use the special form of comments (NatSpec Format, Follow link for more information https://docs.soliditylang.org/en/v0.5.10/natspec-format.html) for your contracts to provide rich documentation for functions, return variables and more. This helps investors to make clear what that variables, functions etc. do.

21. May 2022:

· Read whole report for more information

SWC Attacks

ID	Title	Relationships	Status
<u>SW</u> <u>C-1</u> <u>36</u>	Unencrypted Private Data On-Chain	CWE-767: Access to Critical Private Variable via Public Method	PASSED
<u>SW</u> <u>C-1</u> <u>35</u>	Code With No Effects	CWE-1164: Irrelevant Code	PASSED
<u>SW</u> <u>C-1</u> <u>34</u>	Message call with hardcoded gas amount	CWE-655: Improper Initialization	PASSED
<u>SW</u> <u>C-1</u> <u>33</u>	Hash Collisions With Multiple Variable Length Arguments	CWE-294: Authentication Bypass by Capture-replay	PASSED
<u>SW</u> <u>C-1</u> <u>32</u>	Unexpected Ether balance	CWE-667: Improper Locking	PASSED
<u>SW</u> <u>C-1</u> <u>31</u>	Presence of unused variables	CWE-1164: Irrelevant Code	NOT PASSED
<u>SW</u> <u>C-1</u> <u>30</u>	Right-To-Left- Override control character (U+202E)	CWE-451: User Interface (UI) Misrepresentation of Critical Information	PASSED
<u>SW</u> <u>C-1</u> <u>29</u>	Typographical Error	CWE-480: Use of Incorrect Operator	PASSED
<u>SW</u> <u>C-1</u> <u>28</u>	DoS With Block Gas Limit	CWE-400: Uncontrolled Resource Consumption	PASSED

<u>SW</u> <u>C-1</u> <u>27</u>	Arbitrary Jump with Function Type Variable	CWE-695: Use of Low-Level Functionality	PASSED
SW C-1 25	Incorrect Inheritance Order	CWE-696: Incorrect Behavior Order	PASSED
<u>SW</u> C-1 24	Write to Arbitrary Storage Location	CWE-123: Write-what-where Condition	PASSED
<u>SW</u> <u>C-1</u> <u>23</u>	Requirement Violation	CWE-573: Improper Following of Specification by Caller	PASSED
<u>SW</u> <u>C-1</u> <u>22</u>	Lack of Proper Signature Verification	CWE-345: Insufficient Verification of Data Authenticity	PASSED
<u>SW</u> <u>C-1</u> <u>21</u>	Missing Protection against Signature Replay Attacks	CWE-347: Improper Verification of Cryptographic Signature	PASSED
SW C-1 20	Weak Sources of Randomness from Chain Attributes	CWE-330: Use of Insufficiently Random Values	PASSED
<u>SW</u> <u>C-11</u> <u>9</u>	Shadowing State Variables	CWE-710: Improper Adherence to Coding Standards	PASSED
<u>SW</u> <u>C-11</u> <u>8</u>	Incorrect Constructor Name	CWE-665: Improper Initialization	PASSED
<u>SW</u> C-11 7	Signature Malleability	CWE-347: Improper Verification of Cryptographic Signature	PASSED

<u>SW</u> <u>C-11</u> <u>6</u>	Timestamp Dependence	CWE-829: Inclusion of Functionality from Untrusted Control Sphere	PASSED
<u>SW</u> <u>C-11</u> <u>5</u>	Authorization through tx.origin	CWE-477: Use of Obsolete Function	PASSED
<u>SW</u> <u>C-11</u> <u>4</u>	Transaction Order Dependence	CWE-362: Concurrent Execution using Shared Resource with Improper Synchronization ('Race Condition')	PASSED
<u>SW</u> <u>C-11</u> <u>3</u>	DoS with Failed Call	CWE-703: Improper Check or Handling of Exceptional Conditions	PASSED
<u>SW</u> <u>C-11</u> <u>2</u>	Delegatecall to Untrusted Callee	CWE-829: Inclusion of Functionality from Untrusted Control Sphere	PASSED
<u>SW</u> <u>C-11</u> <u>1</u>	Use of Deprecated Solidity Functions	CWE-477: Use of Obsolete Function	PASSED
<u>SW</u> <u>C-11</u> <u>O</u>	Assert Violation	CWE-670: Always-Incorrect Control Flow Implementation	PASSED
<u>SW</u> <u>C-1</u> <u>09</u>	Uninitialized Storage Pointer	CWE-824: Access of Uninitialized Pointer	PASSED
<u>SW</u> <u>C-1</u> <u>08</u>	State Variable Default Visibility	CWE-710: Improper Adherence to Coding Standards	NOT PASSED
<u>SW</u> <u>C-1</u> <u>07</u>	Reentrancy	CWE-841: Improper Enforcement of Behavioral Workflow	PASSED
<u>SW</u> <u>C-1</u> <u>06</u>	Unprotected SELFDESTRUC T Instruction	CWE-284: Improper Access Control	PASSED

<u>SW</u> <u>C-1</u> <u>05</u>	Unprotected Ether Withdrawal	CWE-284: Improper Access Control	PASSED
<u>SW</u> <u>C-1</u> <u>04</u>	Unchecked Call Return Value	CWE-252: Unchecked Return Value	PASSED
<u>SW</u> <u>C-1</u> <u>03</u>	Floating Pragma	CWE-664: Improper Control of a Resource Through its <u>Lifetime</u>	NOT PASSED
SW C-1 02	Outdated Compiler Version	CWE-937: Using Components with Known Vulnerabilities	PASSED
<u>SW</u> <u>C-1</u> <u>01</u>	Integer Overflow and Underflow	CWE-682: Incorrect Calculation	PASSED
<u>SW</u> <u>C-1</u> <u>00</u>	Function Default Visibility	CWE-710: Improper Adherence to Coding Standards	PASSED



Blockchain Security | Smart Contract Audits | KYC

MADE IN GERMANY