



CFG NINJA AUDITS

Security Assessment

Verse Casino Games

Token

January 15, 2023



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Assessment Summary

This report has been prepared for Verse Casino Games Token on the Binance Smart Chain network. CFGNINJA provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.
- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders
- Thorough line-by-line manual review of the entire codebase by industry experts.








Technical Findings Summary

Classification of Risk

Severity	Description
 Critical	Risks are those that impact the safe functioning of a platform and must be addressed before launch. Users should not invest in any project with outstanding critical risks.
 Major	Risks can include centralization issues and logical errors. Under specific circumstances, these major risks can lead to loss of funds and/or control of the project.
 Medium	Risks may not pose a direct risk to users' funds, but they can affect the overall functioning of a platform
 Minor	Risks can be any of the above but on a smaller scale. They generally do not compromise the overall integrity of the Project, but they may be less efficient than other solutions.
 Informational	Errors are often recommended to improve the code's style or certain operations to fall within industry best practices. They usually do not affect the overall functioning of the code.

Findings

Severity	Found	Pending	Resolved
 Critical	0	0	0
 Major	1	1	0
 Medium	0	0	0
 Minor	3	3	0
 Informational	0	0	0
Total	4	4	0



Project Overview

Token Summary

Parameter	Result
Address	0xe8228aEEF43630BB334c9865a9CaCD8EAc2cDB1B
Name	Verse Casino Games
Token Tracker	Verse Casino Games (VCG)
Decimals	18
Supply	100,000,000
Platform	Binance Smart Chain
compiler	v0.8.15+commit.e14f2714
Contract Name	BasicToken
Optimization	Yes with 200 runs
LicenseType	MIT
Language	Solidity
Codebase	https://bscscan.com/token/0xe8228aEEF43630BB334c9865a9CaCD8EAc2cDB1B#code
Payment Tx	0x746e0f6ca6ea1e8651838e9592150389d4bdfb9029f4634bc8a1935110e5acb0



Project Overview

Risk Analysis Summary

Parameter	Result
Buy Tax	5%
Sale Tax	5%
Is honeypot?	Clean
Can edit tax?	Yes
Is anti whale?	Yes
Is blacklisted?	No
Is whitelisted?	NO
Holders	2
Confidence Level	Medium

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.





Main Contract Assessed

Contract Name

Name	Contract	Live
Verse Casino Games	0xe8228aEEF43630BB334c9865a9CaCD8EAc2cDB1B	Yes

TestNet Contract was Not Assessed

Solidity Code Provided

SolID	File Sha-1	FileName
verse	d3be8beb50e5a5117520b5171a54336777c47ebf	verse.sol



Mint Check

The project owners of Verse Casino Games do not have a mint function in the contract, owner cannot mint tokens after initial deploy.

The Project has a Total Supply of 100,000,000 and cannot mint any more than the Max Supply.

Mint Notes:

Auditor Notes:

Project Owner Notes:



Owner can't mint new coins



Fees Check

The project owners of Verse Casino Games do not have the ability to set fees higher than 25% .

The team May have fees defined; however, they can't set those fees higher than 25% or may not be able to configure the same.

Tax Fee Notes:

Auditor Notes: The contract currently has 5% buy and 5% sale taxes, and cannot be set higher than 25%.

Project Owner Notes:



Fees can be changed up to a maximum of 25%



Blacklist Check

The project owners of Verse Casino Games do not have a blacklist function their contract.

The Project allow owners to transfer their tokens without any restrictions.

Token owner cannot blacklist the contract: Malicious or compromised owners can trap contracts relying on tokens with a blacklist.

Blacklist Notes:

Auditor Notes:

Project Owner Notes: undefined



MaxTx Check

The Project Owners of Verse Casino Games can set max tx amount.

The ability to set MaxTx can be used as bad actor, this can limit the ability of investors to sale their tokens at any given time if is set too low..

We recommend the project to set MaxTx to Total Supply or simiar to avoid swap or transfer from failures

MaxTX Notes:

Auditor Notes: Max transfer rates must be greater than 0.1% - Max wallet limit rate must be greater than 1%

Project Owner Notes:

Project Has MaxTX



Pause Trade Check

The Project Owners of Verse Casino Games don't have the ability to stop or pause trading.

The Team has done a great job to avoid stop trading, and investors has the ability to trade at any given time without any problems

Pause Trade Notes:

Auditor Notes: There is an Open Trade so holders cant trade until is enable.

Project Owner Notes:



Owner can't pause trading



Contract Ownership

The contract ownership of Verse Casino Games is not currently renounced. The ownership of the contract grants special powers to the protocol creators, making them the sole addresses that can call sensible ownable functions that may alter the state of the protocol.

The current owner is the address
0x8a16d5c04e2f123ba35866fedbd5658044e3dd52
which can be viewed:
[HERE](#)

The owner wallet has the power to call the functions displayed on the privileged functions chart below, if the owner's wallet is compromised, they could exploit these privileges.

We recommend the team renounce ownership at the right time, if possible, or gradually migrate to a timelock with governing functionalities regarding transparency and safety considerations.

We recommend the team use a Multisignature Wallet if the contract is not going to be renounced; this will give the team more control over the contract.



Liquidity Ownership

The token does not have liquidity at the moment of the audit, block 24738442

If liquidity is unlocked, then the token developers can do what is infamously known as 'rugpull'. Once investors start buying token from the exchange, the liquidity pool will accumulate more and more coins of established value (e.g., ETH or BNB or Tether). This is because investors are basically sending these tokens of value to the exchange, to get the new token. Developers can withdraw this liquidity from the exchange, cash in all the value and run off with it. Liquidity is locked by renouncing the ownership of liquidity pool (LP) tokens for a fixed time period, by sending them to a time-lock smart contract. Without ownership of LP tokens, developers cannot get liquidity pool funds back. This provides confidence to the investors that the token developers will not run away with the liquidity money. It is now a standard practice that all token developers follow, and this is what really differentiates a scam coin from a real one.

[Read More](#)



KYC Information

The Project Owners of Verse Casino Games have provided KYC Documentation.

KYC Certificated can be found on the Following:
KYC Data

KYC Information Notes:

Auditor Notes:

Project Owner Notes:



Smart Contract Vulnerability Checks

ID	Severity	Name	File	location
SWC-100	Pass	Function Default Visibility	verse.sol	L: 0 C: 0
SWC-101	Pass	Integer Overflow and Underflow.	verse.sol	L: 0 C: 0
SWC-102	Pass	Outdated Compiler Version file.	verse.sol	L: 0 C: 0
SWC-103	Pass	A floating pragma is set.	verse.sol	L: 0 C: 0
SWC-104	Pass	Unchecked Call Return Value.	verse.sol	L: 0 C: 0
SWC-105	Pass	Unprotected Ether Withdrawal.	verse.sol	L: 0 C: 0
SWC-106	Pass	Unprotected SELFDESTRUCT Instruction	verse.sol	L: 0 C: 0
SWC-107	Pass	Read of persistent state following external call.	verse.sol	L: 0 C: 0
SWC-108	Pass	State variable visibility is not set..	verse.sol	L: 0 C: 0
SWC-109	Pass	Uninitialized Storage Pointer.	verse.sol	L: 0 C: 0
SWC-110	Pass	Assert Violation.	verse.sol	L: 0 C: 0
SWC-111	Pass	Use of Deprecated Solidity Functions.	verse.sol	L: 0 C: 0
SWC-112	Pass	Delegate Call to Untrusted Callee.	verse.sol	L: 0 C: 0



ID	Severity	Name	File	location
SWC-113	Pass	Multiple calls are executed in the same transaction.	verse.sol	L: 0 C: 0
SWC-114	Pass	Transaction Order Dependence.	verse.sol	L: 0 C: 0
SWC-115	Pass	Authorization through tx.origin.	verse.sol	L: 0 C: 0
SWC-116	Pass	A control flow decision is made based on The block.timestamp environment variable.	verse.sol	L: 0 C: 0
SWC-117	Pass	Signature Malleability.	verse.sol	L: 0 C: 0
SWC-118	Pass	Incorrect Constructor Name.	verse.sol	L: 0 C: 0
SWC-119	Pass	Shadowing State Variables.	verse.sol	L: 0 C: 0
SWC-120	Pass	Potential use of block.number as source of randomness.	verse.sol	L: 0 C: 0
SWC-121	Pass	Missing Protection against Signature Replay Attacks.	verse.sol	L: 0 C: 0
SWC-122	Pass	Lack of Proper Signature Verification.	verse.sol	L: 0 C: 0
SWC-123	Pass	Requirement Violation.	verse.sol	L: 0 C: 0
SWC-124	Pass	Write to Arbitrary Storage Location.	verse.sol	L: 0 C: 0
SWC-125	Pass	Incorrect Inheritance Order.	verse.sol	L: 0 C: 0
SWC-126	Pass	Insufficient Gas Griefing.	verse.sol	L: 0 C: 0
SWC-127	Pass	Arbitrary Jump with Function Type Variable.	verse.sol	L: 0 C: 0



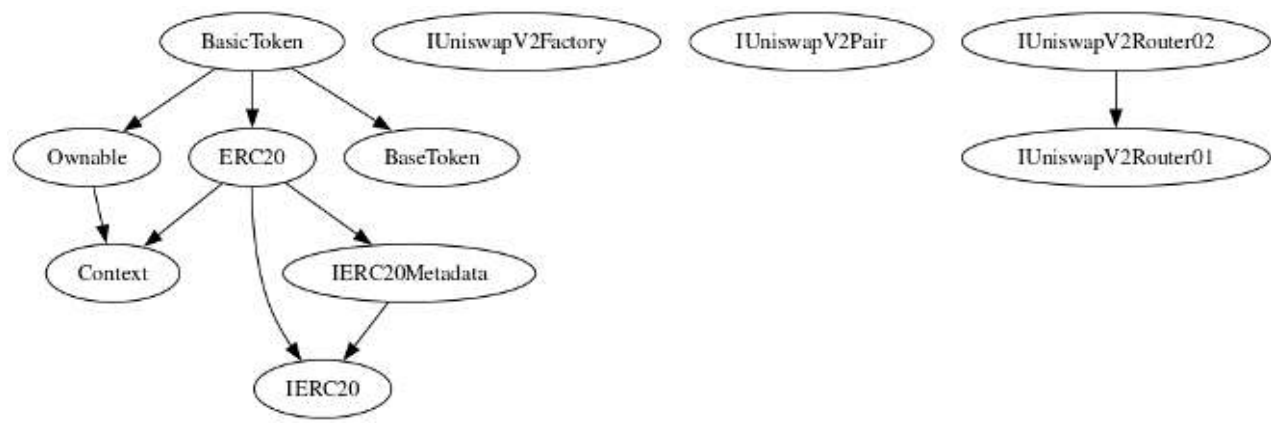
ID	Severity	Name	File	location
SWC-128	Pass	DoS With Block Gas Limit.	verse.sol	L: 0 C: 0
SWC-129	Pass	Typographical Error.	verse.sol	L: 0 C: 0
SWC-130	Pass	Right-To-Left-Override control character (U +202E).	verse.sol	L: 0 C: 0
SWC-131	Pass	Presence of unused variables.	verse.sol	L: 0 C: 0
SWC-132	Pass	Unexpected Ether balance.	verse.sol	L: 0 C: 0
SWC-133	Pass	Hash Collisions with Multiple Variable Length Arguments.	verse.sol	L: 0 C: 0
SWC-134	Pass	Message call with hardcoded gas amount.	verse.sol	L: 0 C: 0
SWC-135	Pass	Code With No Effects (Irrelevant/Dead Code).	verse.sol	L: 0 C: 0
SWC-136	Pass	Unencrypted Private Data On-Chain.	verse.sol	L: 0 C: 0

We scan the contract for additional security issues using MYTHX and industry-standard security scanning tools.



Inheritance

The contract for Verse Casino Games has the following inheritance structure.



Privileged Functions (onlyOwner)

Function Name	Parameters	Visibility
renounceOwnership		public
transferOwnership	newOwner (address)	public
claimStuckTokens	address token	external
updateUniswapV2Router	address newAddress	external
setAutomatedMarketMakerPair	address pair, bool value	public
excludeFromFees	address account	external
updateFees	uint256 _buyFee, uint256 _sellFee	external
updateFeeShares	uint256 _marketing FeeShare, uint256 _liquidityFeeShare	external
enableWalletToWallet TransferWithoutFee	bool enable	external
changeMarketingWallet	address _marketingWallet	external



Function Name	Parameters	Visibility
setSwapTokensAtAmount	uint256 newAmount	external
setEnableMaxWalletLimit	bool enable	external
setExcludeFromMaxWallet	address account, bool exclude	external
setExcludeFromMaxTransactionLimit	address account, bool exclude	external
setEnableMaxTransactionLimit	(bool enable	external





Smart Contract Advance Checks

ID	Severity	Name	Result	Status
VCG-01	Minor	Potential Sandwich Attacks.	Fail	Pending
VCG-02	Minor	Function Visibility Optimization	Fail	Pending
VCG-03	Minor	Lack of Input Validation.	Pass	Not-Found
VCG-04	Major	Centralized Risk In addLiquidity.	Pass	Not-Found
VCG-05	Minor	Missing Event Emission.	Fail	Pending
VCG-06	Minor	Conformance with Solidity Naming Conventions.	Pass	Not Found
VCG-07	Minor	State Variables could be Declared Constant.	Pass	Not-Found
VCG-08	Major	Dead Code Elimination.	Pass	Not-Found
VCG-09	Major	Third Party Dependencies.	Pass	Not Found
VCG-10	Major	Initial Token Distribution.	Fail	Pending
VCG-11	Critical	distributeTokensBetween Holders is a multisender of tokens from contract.	Pass	Not-Found
VCG-12	Major	Centralization Risks In The X Role	Pass	Not Found
VCG-13	Informational	Extra Gas Cost For User..	Pass	Not-Found
VCG-14	Informational	Unnecessary Use Of SafeMath	Pass	Not-Found



VCG-01 | Potential Sandwich Attacks.

Category	Severity	Location	Status
Security	 Minor	verse.sol: 745,13, 773,13	 Pending

Description

A sandwich attack might happen when an attacker observes a transaction swapping tokens or adding liquidity without setting restrictions on slippage or minimum output amount. The attacker can manipulate the exchange rate by frontrunning (before the transaction being attacked) a transaction to purchase one of the assets and make profits by back running (after the transaction being attacked) a transaction to sell the asset. The following functions are called without setting restrictions on slippage or minimum output amount, so transactions triggering these functions are vulnerable to sandwich attacks, especially when the input amount is large:

- swapExactTokensForETHSupportingFeeOnTransferTokens()
- addLiquidityETH()

Remediation



We recommend setting reasonable minimum output amounts, instead of 0, based on token prices when calling the aforementioned functions.

References:

What Are Sandwich Attacks in DeFi — and How Can You Avoid Them?.



VCG-02 | Function Visibility Optimization.

Category	Severity	Location	Status
Gas Optimization	 Minor	verse.sol: 595,13	 Pending

Description

The following functions are declared as public and are not invoked in any of the contracts contained within the projects scope:

Function Name	Parameters	Visibility
setAutomatedMarketMakerPair		public

The functions that are never called internally within the contract should have external visibility

Remediation



We advise that the function's visibility specifiers are set to external, and the array-based arguments change their data location from memory to calldata, optimizing the gas cost of the function.

References:

external vs public best practices.



VCG-05 | Missing Event Emission.

Category	Severity	Location	Status
Volatile Code	 Minor	verse.sol: 478, 14	 Pending

Description



Detected missing events for critical arithmetic parameters. There are functions that have no event emitted, so it is difficult to track off-chain changes. The linked code does not create an event for the transfer.

Remediation

Emit an event for critical parameter changes. It is recommended emitting events for the sensitive functions that are controlled by centralization roles.



VCG-10 | Initial Token Distribution.

Category	Severity	Location	Status
Centralization / Privilege	 Major	verse.sol: 557,9	 Pending

Description

All of the Verse Casino Games tokens are sent to the contract deployer when deploying the contract. This could be a centralization risk as the deployer can distribute tokens without obtaining the consensus of the community.

Remediation

We recommend the team to be transparent regarding the initial token distribution process, and the team shall make enough efforts to restrict the access of the private key.

Project Action

Token Distribution goes to the owner()



Social Media Checks

Social Media	URL	Result
Twitter	https://twitter.com/VerseCasinoGame	Pass
Other		Fail
Website	https://versecasino.games/	Fail
Telegram	https://t.me/VerseCasinoGame	Pass

We recommend to have 3 or more social media sources including a completed working websites.

Social Media Information Notes:

Auditor Notes: undefined

Project Owner Notes:



Assessment Results

Score Results

Review	Score
Overall Score	87/100
Auditor Score	75/100
Review by Section	Score
Manual Scan Score	30/35
SWC Scan Score	37 /37
Advance Check Score	20 /28

The Following Score System Has been Added to this page to help understand the value of the audit, the maximum score is 100, however to attain that value the project must pass and provide all the data needed for the assessment. Our Passing Score has been changed to 80 Points, if a project does not attain 80% is an automatic failure. Read our notes and final assessment below.

Audit Passed



Assessment Results

Important Notes:

- No Issues or Vulnerabilities were found in the code.
- 4 total items found.
- The code is a factory code made by Contract Checker.
- Website is currently suspended.
- Make sure to dyor.

Auditor Score =75
Audit Passed



Appendix

Finding Categories

Centralization / Privilege

Centralization / Privilege findings refer to either feature logic or implementation of components that act against the nature of decentralization, such as explicit ownership or specialized access roles in combination with a mechanism to relocate funds.

Gas Optimization

Gas Optimization findings 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.

Logical Issue

Logical Issue findings 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 a vulnerability.

Coding Style

Coding Style findings usually do not affect the generated byte-code but rather 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 requirements on the input variables than a setter function.

Coding Best Practices

ERC 20 Coding Standards are a set of rules that each developer should follow to ensure the code meets a set of criteria and is readable by all the developers.



Disclaimer

CFGNINJA has conducted an independent security assessment to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the reviewed code for the scope of this assessment. This report does not constitute agreement, acceptance, or advocacy for the Project, and users relying on this report should not consider this as having any merit for financial advice in any shape, form, or nature. The contracts audited do not account for any economic developments that the Project in question may pursue, and the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude, and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are entirely free of exploits, bugs, vulnerabilities or deprecation of technologies.

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