

Audit Report Z Versus Project

August 2022

Type BEP20

Network BSC TESTNET

Address 0x5Fd9187eCC1283392b94bde85490569f54451cA0

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Contract Review

Contract Name	ZVersusProject
Compiler Version	v0.8.9+commit.e5eed63a
Testing Deploy	https://testnet.bscscan.com/token/0x5Fd9187eCC12833 92b94bde85490569f54451cA0
Symbol	ZVERSUS
Decimals	9
Total Supply	130,000
Domain	

Source Files

Filename	SHA256
contract.sol	080e6c3adcdc39ed09f57d8fd926748937219c3d268f51f9 40c5dc72f84667ac

Audit Updates

Initial Audit	11th July 2022 https://github.com/cyberscope-io/audits/blob/main/zve rsus/v1/audit.pdf
Corrected phase 1	24th August 2022 https://github.com/cyberscope-io/audits/blob/main/zve rsus/v2/audit.pdf
Corrected phase 2	20th September 2022



Contract Analysis

CriticalMediumMinor / InformativePass

Severity	Code	Description	Status
•	ST	Stops Transactions	Passed
•	OCTD	Transfers Contract's Tokens	Passed
•	OTUT	Transfers User's Tokens	Passed
•	ELFM	Exceeds Fees Limit	Passed
•	ULTW	Transfers Liquidity to Team Wallet	Passed
•	MT	Mints Tokens	Passed
•	ВТ	Burns Tokens	Passed
•	ВС	Blacklists Addresses	Passed

Contract Diagnostics

CriticalMediumMinor / Informative

Severity	Code	Description	Status
•	STC	Succeeded Transfer Check	Unresolved
•	CO	Code Optimization	Unresolved
•	L01	Public Function could be Declared External	Unresolved
•	L04	Conformance to Solidity Naming Conventions	Unresolved
•	L07	Missing Events Arithmetic	Unresolved
•	L12	Using Variables before Declaration	Unresolved
•	L14	Uninitialized Variables in Local Scope	Unresolved



STC - Succeeded Transfer Check

Criticality	minor / informative
Location	contract.sol#L489
Status	Unresolved

Description

According to the ERC20 specification, the transfer methods should be checked if the result is successful. Otherwise, the contract may wrongly assume that the transfer has been established.

```
bool success;
uint256 marketingBalance = amtBalance;
(success,) = marketingWallet.call{value: marketingBalance, gas: 35000}("");
```

Recommendation

The contract should check if the result of the transfer methods is successful.



CO - Code Optimization

Criticality	minor / informative
Location	contract.sol#L117
Status	Unresolved

Description

There are code segments that could be optimized. A segment may be optimized so that it becomes a smaller size, consumes less memory, executes more rapidly, or performs fewer operations.

Since buy fees are fixes they can be removed from the structure.

```
struct Fees {
    uint16 buyFee;
    uint16 sellFee;
    uint16 transferFee;
}

Fees public _taxRates = Fees({
    buyFee: 0,
    sellFee: 200,
    transferFee: 1000
});
```

Recommendation

Rewrite some code segments so the runtime will be more performant.

L01 - Public Function could be Declared External

Criticality	minor / informative
Location	contract.sol#L266,347,508
Status	Unresolved

Description

Public functions that are never called by the contract should be declared external to save gas.

transfer
getCirculatingSupply
enableTrading

Recommendation

Use the external attribute for functions never called from the contract.



L04 - Conformance to Solidity Naming Conventions

Criticality	minor / informative
Location	contract.sol#L33,355,111,112,113,114,115,123,129,130,131,147
Status	Unresolved

Description

Solidity defines a naming convention that should be followed. Rule exceptions:

- Allow constant variable name/symbol/decimals to be lowercase.
- Allow _ at the beginning of the mixed_case match for private variables and unused parameters.

```
WETH
_antiSnipe
_antiBlock
startingSupply
_name
_symbol
_decimals
_tTotal
_taxRates
...
```

Recommendation

Follow the Solidity naming convention.

https://docs.soliditylang.org/en/v0.4.25/style-guide.html#naming-conventions.

L07 - Missing Events Arithmetic

Criticality	minor / informative
Location	contract.sol#L377,386
Status	Unresolved

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.

```
swapThreshold = (_tTotal * thresholdPercent) / thresholdDivisor
piSwapPercent = priceImpactSwapPercent
```

Recommendation

Emit an event for critical parameter changes.



L12 - Using Variables before Declaration

Criticality	minor / informative
Location	contract.sol#L537
Status	Unresolved

Description

The contract is using a variable before the declaration. This is usually happening either if it has not been declared yet or the variable has been declared in a different scope.

check

Recommendation

The variables should be declared before any usage of them.



L14 - Uninitialized Variables in Local Scope

Criticality	minor / informative
Location	contract.sol#L536,537
Status	Unresolved

Description

The are variables that are defined in the local scope and are not initialized.

checked check

Recommendation

All the local scoped variables should be initialized.

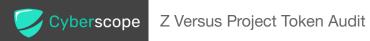


Contract Functions

Contract	Туре	Bases		
	Function Name	Visibility	Mutability	Modifiers
IERC20	Interface			
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	1	-
	transferFrom	External	1	-
IFactoryV2	Interface			
	getPair	External		-
	createPair	External	✓	-
IV2Pair	Interface			
	factory	External		_
	getReserves	External		-
	sync	External	✓	-
IRouter01	Interface			
	factory	External		-
	WETH	External		-
	addLiquidityETH	External	Payable	-
	addLiquidity	External	1	-
	swapExactETHForTokens	External	Payable	-
	getAmountsOut	External		-



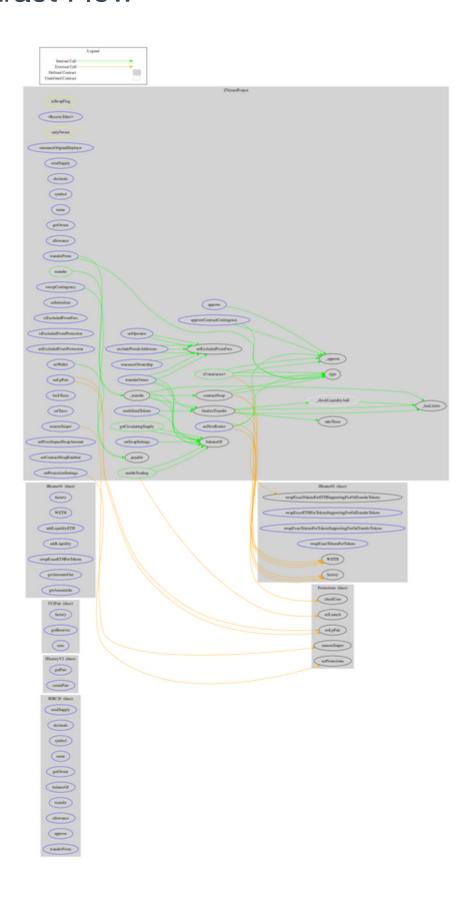
	getAmountsIn	External		-
IRouter02	Interface	IRouter01		
	swapExactTokensForETHSupporting FeeOnTransferTokens	External	✓	-
	swapExactETHForTokensSupporting FeeOnTransferTokens	External	Payable	-
	swapExactTokensForTokensSupporti ngFeeOnTransferTokens	External	1	-
	swapExactTokensForTokens	External	✓	-
Protections	Interface			
	checkUser	External	1	-
	setLaunch	External	1	-
	setLpPair	External	1	-
	setProtections	External	1	-
	removeSniper	External	✓	-
ZVersusProjec t	Implementation	IERC20		
	<constructor></constructor>	Public	Payable	-
	<receive ether=""></receive>	External	Payable	-
	transferOwner	External	✓	onlyOwner
	renounceOwnership	External	✓	onlyOwner
	setOperator	External	✓	-
	renounceOriginalDeployer	External	✓	-
	totalSupply	External		-
	decimals	External		-
	symbol	External		-
	name	External		-
	getOwner	External		-
	allowance	External		-
	balanceOf	Public		-
	transfer	Public	1	-
	approve	External	1	-
	_approve	Internal	1	



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approveContractContingency	External	√	onlyOwner
transferFrom	External	/	-
setNewRouter	External	1	onlyOwner
setLpPair	External	✓	onlyOwner
setInitializer	External	1	onlyOwner
isExcludedFromFees	External		-
isExcludedFromProtection	External		-
setExcludedFromFees	Public	✓	onlyOwner
setExcludedFromProtection	External	✓	onlyOwner
getCirculatingSupply	Public		-
removeSniper	External	✓	onlyOwner
setProtectionSettings	External	1	onlyOwner
lockTaxes	External	✓	onlyOwner
setTaxes	External	✓	onlyOwner
setWallet	External	✓	onlyOwner
setSwapSettings	External	✓	onlyOwner
setPriceImpactSwapAmount	External	✓	onlyOwner
setContractSwapEnabled	External	✓	onlyOwner
excludePresaleAddresses	External	1	onlyOwner
_hasLimits	Internal		
_transfer	Internal	✓	
contractSwap	Internal	1	inSwapFlag
_checkLiquidityAdd	Internal	1	
enableTrading	Public	1	onlyOwner
sweepContingency	External	1	onlyOwner
multiSendTokens	External	1	onlyOwner
finalizeTransfer	Internal	1	
takeTaxes	Internal	1	



Contract Flow





Domain Info

Domain Name	zversus.io
Registry Domain ID	d78703517ed94161b1e8de375cc31687-DONUTS
Creation Date	2022-01-10T13:51:00Z
Updated Date	2022-04-20T12:38:14Z
Registry Expiry Date	2023-01-10T13:51:00Z
Registrar WHOIS Server	whois.namecheap.com
Registrar URL	https://www.namecheap.com/
Registrar	NameCheap, Inc.
Registrar IANA ID	1068

The domain was created 8 months before the creation of the audit. It will expire in 5 months.

There is no public billing information, the creator is protected by the privacy settings.



Summary

Z Versus Project is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler error or critical issues. The contract Owner can access some admin functions that can not be used in a malicious way to disturb the users' transactions. There is also a limit of max 5% fees on sell transactions and there is no fee on buy transactions.



Disclaimer

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About Cyberscope

Coinscope audit and K.Y.C. service has been rebranded to Cyberscope.

Coinscope is the leading early coin listing, voting and auditing authority firm. The audit process is analyzing and monitoring many aspects of the project. That way, it gives the community a good sense of security using an informative report and a generic score.

Cyberscope and Coinscope are aiming to make crypto discoverable and efficient globally. They provide all the essential tools to assist users draw their own conclusions.



The Cyberscope team

https://www.cyberscope.io