



RugFreeCoins Audit



Imperial Obelisk Token

Smart Contract Security Audit

October 27, 2021

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Audit details



Audited project

Imperial Obelisk Token



Contract Address

0x42a0d24cb5c423eaaf926ce3984aaff0c4ff6fe2



Client contact

Imperial Obelisk Team



Blockchain

Ethereum smart chain



Project website

<https://imperialobelisk.net/>

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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Background

Rugfreecoins was commissioned by Imperial Obelisk Token to perform an audit of the smart contract.

<https://etherscan.io/token/0x42a0d24cb5c423eaf926ce3984aaff0c4ff6fe2>

The focus of this audit is to verify that the smart contract is secure, resilient and working according to the specifications.

The information in this report should be used to understand the risk exposure of the smart contract, project feasibility, long term sustainability and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

About the project

Imperial Obelisk \$IMP is a cryptocurrency on the ERC20 blockchain. Imperial Obelisk reshapes Gaming with the use of seamless NFT integration. The team aim to create an immersive resource gathering, world exploring and crafting experience by taking on elements of games such as Minecraft, Decentraland and Terraria and combining them to create the ultimate indie adventure experience powered by NFTs. The goal of the token is to soar to the sky and become the best community in the crypto world.

Features

- ❖ The **automatic Imperial Obelisk token rewards** will be distributed among every holder proportional to how many tokens each individual holds in values of 5% when buying and selling.
- ❖ The **sustainability fee of 5% when buying and selling for Dev & marketing** is what allows Imperial Obelisk to hold the aforementioned promise. Tokens will be swapped into ETH and will be sent to a marketing wallet per transaction. This way, Imperial Obelisk will have enough funds to promote the coin and spend for future development without selling tokens as the traditional way.

Tokenomics

5% fee when buying and selling

- ❖ 5% of trade goes to holders' pockets in tokens.
- ❖ 5% of trade goes to marketing & dev wallet in ETH.

Roadmap

PHASE 1

- ❖ 100 holders
- ❖ Stealth Launch
- ❖ Launch Twitter
- ❖ Create website
- ❖ Get listed on minor websites like coinhunt, coinsniper, etc.
- ❖ Minor Marketing Campaign Get info on Etherscan

PHASE 2

- ❖ 1000 holders
- ❖ Twitter campaign
- ❖ Listed on CoinMarketCap
- ❖ Listed on CoinGecko
- ❖ Listed on Blockfolio
- ❖ Marketing campaign
- ❖ NFTs

PHASE 3

- ❖ 10000+ Holders
- ❖ Community driven utility
- ❖ Listed on minor CEX
- ❖ Listed on major CEX
- ❖ Launch of community-focused dApp

Target market and the concept

Target market

- ❖ Anyone who's interested in Crypto space with long term investment plans.
- ❖ Anyone who's ready to earn a passive income in tokens by holding tokens.
- ❖ Anyone who's interested in owning NFTs.
- ❖ Any casual or hardcore gamers out there play the games and win rewards.
- ❖ Anyone who's interested in collecting NFTs or trading NFTs.
- ❖ Anyone who's interested in winning merchandise.
- ❖ Anyone who's interested in trading tokens.
- ❖ All ETH investors and fans out there.
- ❖ Anyone who's interested in taking part with the future plans of the Imperial Obelisk token.
- ❖ Anyone who's interested in making financial transactions with any other party using Imperial Obelisk or ETH as the currency.

Core concept

The reward system

5% of each transaction when buying and selling gets sent in tokens and is split amongst all holders. The rewards are sent to holders in tokens, holders will be eligible to receive tokens every transaction and rewards are proportional to how many tokens each individual holds.

Sustainable mechanism

The **sustainability fee of 5% when buying and selling for Dev & marketing** is what allows Imperial Obelisk to promote the token and use funds to further development of the platform. Tokens will be swapped into ETH and will be sent to a marketing wallet per transaction. This way, Imperial Obelisk will have access to the funds without selling tokens as the traditional way, which will enable them to consume funds without hurting the project.

\$IMP is required for the purchase of 20x20 plots in our 20000x20000 world map. \$IMP is also required for ingame staking and for equipment upgrades. So how does it all come together? 1/2 \$IMP will be used to purchase 20x20 land plots which will grant a player access to all the resources and monsters within that 20x20 plot.

The players will purchase the plots with \$IMP from OpenSea in the form of a 200x200 pixel that is an upscaled version of the surface of the 20x20 plot purchased. The player will only be aware of the land type, climate, temperature, humidity and NPC count of each plot.

These attributes will determine the types of resources and NPCs that the players will encounter in these plots. Depending on the resources collected, players will be able to fuse said resources

together and form a monument. The monument type depends on the resources that the player uses.

So how does it all come together? 2/2 For example: if a player uses 3 Sand Flasks, 10 Egyptian Fortune pieces, 10 Oasis Water flasks and one Pharaoh's Amulet he can craft the "Pyramids of Giza". On another note, if a player purchases a 20x20 plot with hill terrain on and comes across that terrain's resources, he can craft "King Arthur's Castle".

Crafting each of the 20 monuments allows a player to combine them to form the "Imperial Obelisk", an NFT that resets the player's progress on the skill tree but grants him increased APY staking and access to in-game cosmetics and rewards.

Beyond the Game the team wants to make Imperial Obelisk into an all-encompassing experience. As such, they plan to release merchandise and real-life trinkets in the future that can be redeemed by players with the corresponding in-game achievements. Alternatively, those who have not completed said achievements can still purchase the merchandise with \$IMP at a discount or with Ethereum at full price.

Crowdfunded Liquidity \$IMP's community took it upon themselves to add liquidity at Unprecedented rates! As of September 30, 2021, \$IMP has around 56% Of the liquidity locked and the other 44% coming from holders Themselves. This makes \$IMP unique to many other coins nowadays As it shows just how much everyone believes in the project!

Potential to grow with score points

1.	Project efficiency	9/10
2.	Project uniqueness	9/10
3	Information quality	8/10
4	Service quality	9/10
5	System quality	9/10
6	Impact on the community	8/10
7	Impact on the business	9/10
8	Preparing for the future	8/10
Total Points		8.625/10

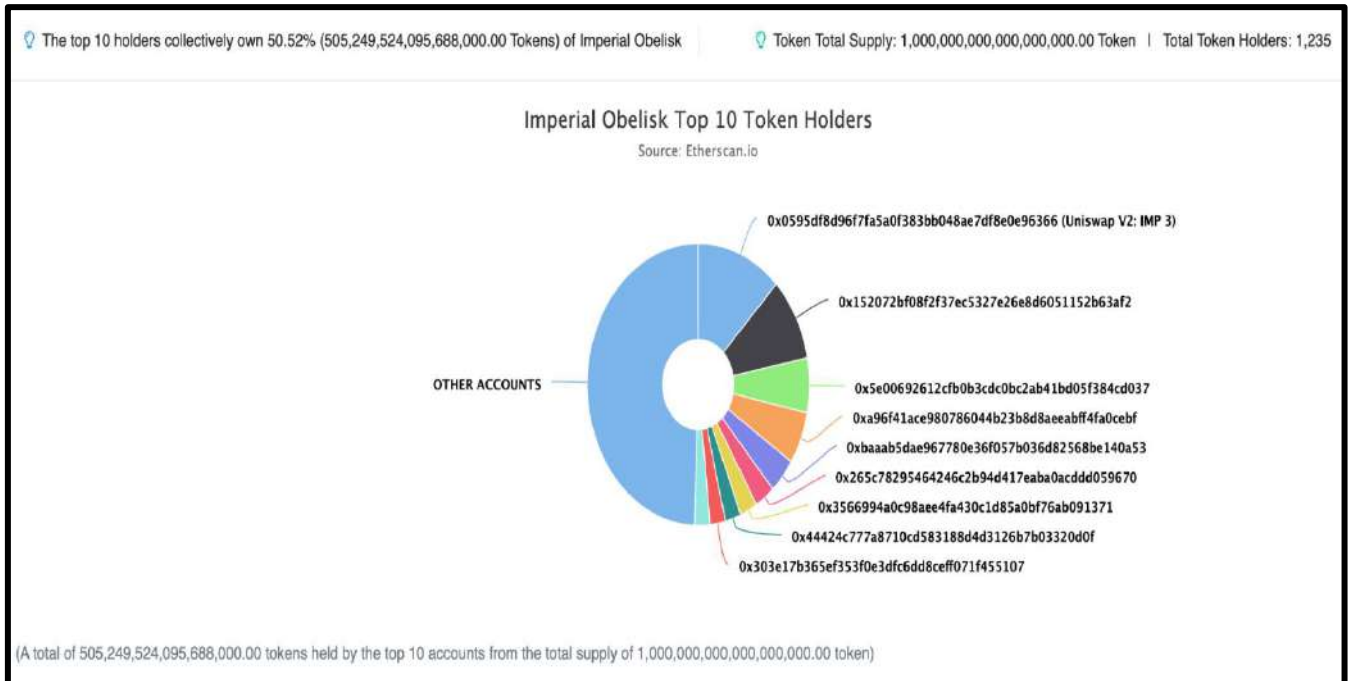
Contract details

Token contract details for 27th October 2021

Contract name	Imperial Obelisk
Contract address	0x42a0d24cb5c423eaaf926ce3984aaff0c4ff6fe2
Token supply	1,000,000,000,000,000,000
Token ticker	IMP
Decimals	9
Token holders	1,235
Transaction count	3,240
Contract deployer address	0x0E198545147fa12e3c6cb2cfc5876ee3c5840f27
Contract's current owner address	0x0000000000000000000000000000000000000000

Top token holders

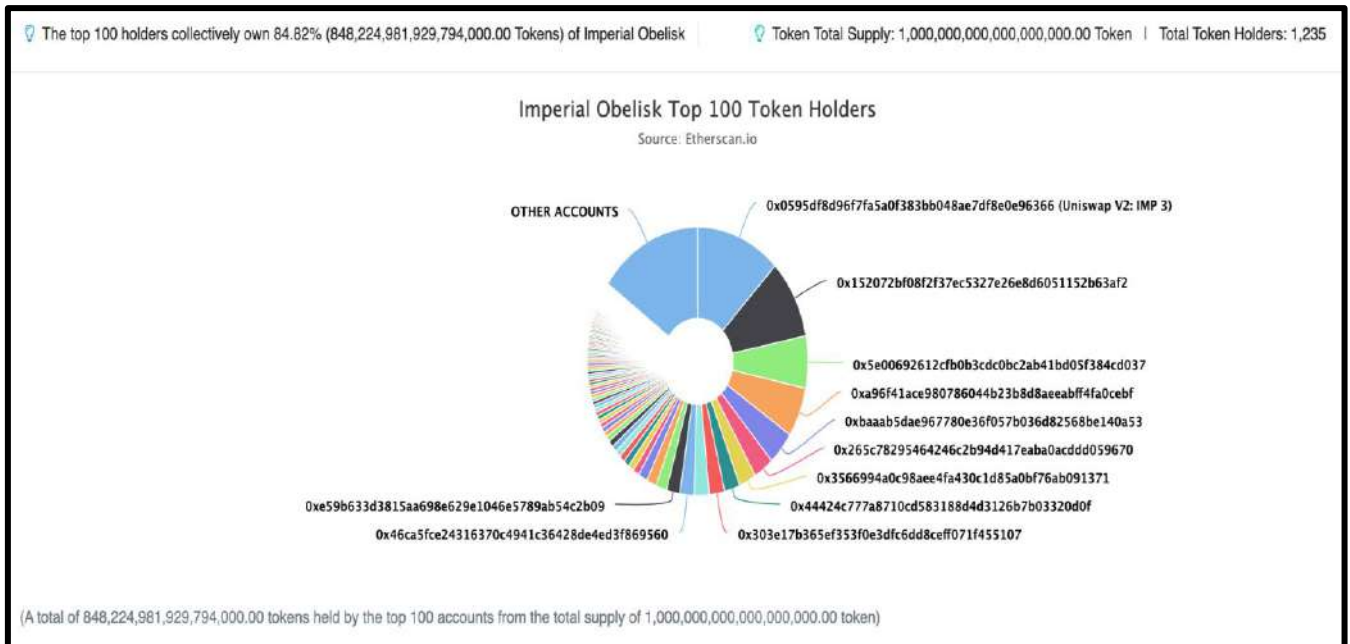
Top 10 Token Holders



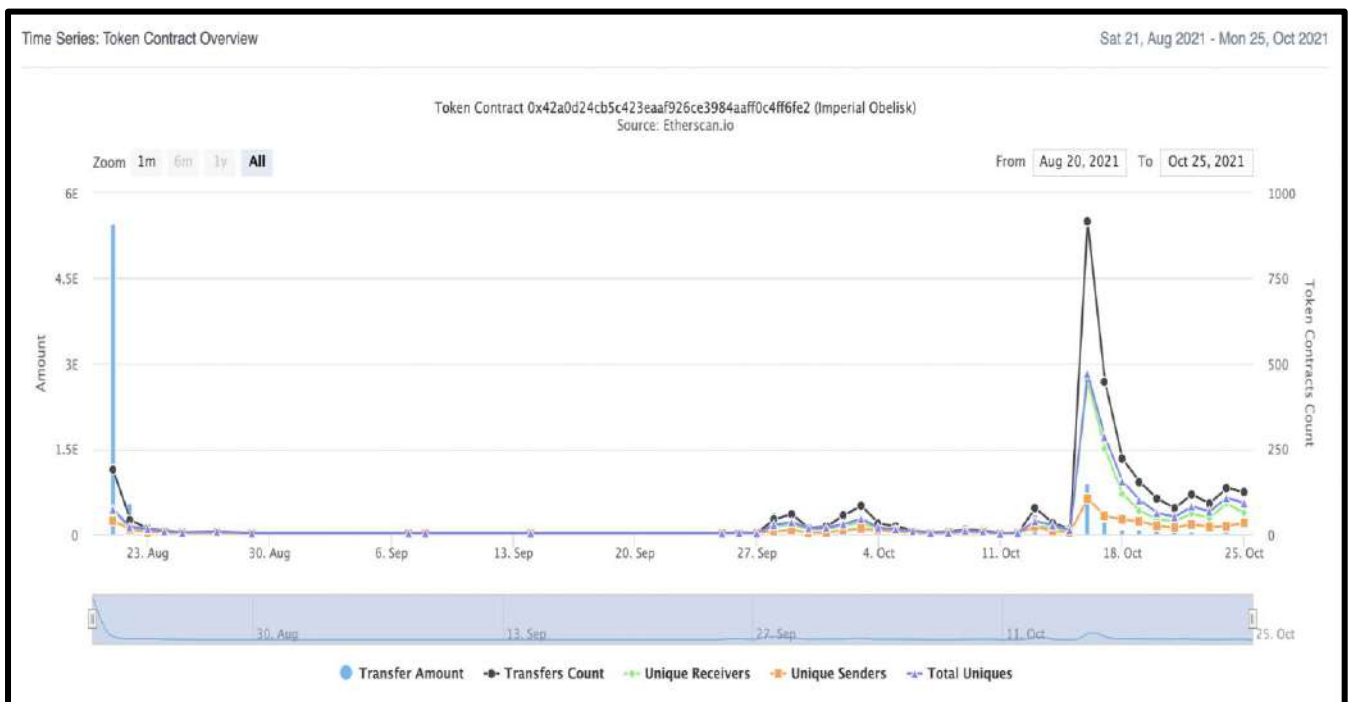
Rank	Address	Quantity (Token)	Percentage
1	Uniswap V2: IMP 3	123,918,009,906,778,000.927251771	12.3918%
2	0x152072bf08f2f37ec5327e26e8d6051152b63af2	95,631,165,880,788,700.222263915	9.5631%
3	0x5e00692612cfb0b3cdc0bc2ab41bd05f384cd037	62,952,626,362,321,500.091434576	6.2953%
4	0xa96f41ace980786044b23b8d8aeabff4fa0cebf	59,863,100,286,904,900.368608595	5.9863%
5	0xbbaab5dae967780e36f057b036d82568be140a53	40,489,288,269,994,600.644245936	4.0489%
6	0x265c78295464246c2b94d417eaba0acdd059670	29,262,663,587,554,700.038961482	2.9263%
7	0x3566994a0c98aee4fa430c1d85a0bf76ab091371	25,501,676,966,450,500.955028514	2.5502%
8	0x44424c777a8710cd583188d4d3126b7b03320d0f	22,896,923,802,190,600.862511202	2.2897%
9	0x303e17b365ef353f0e3dfc6dd8ceff071f455107	22,702,281,225,802,500.301839012	2.2702%
10	0x74d42547c0194650fdc76913614b7add7d5dca5f	22,031,787,786,900,200.518703534	2.2032%

Token distribution

Top 100 Token Holder



Contract interaction details
























































Contract code function details





















No	Category	Item	Result
1	Coding conventions	BRC20 Token standards	pass
		compile errors	pass
		Compiler version security	pass
		visibility specifiers	pass
		Gas consumption	pass
		SafeMath features	pass
		Fallback usage	pass
		tx.origin usage	pass
		deprecated items	pass
		Redundant code	pass
		Overriding variables	pass
2	Function call audit	Authorization of function call	pass
		Low level function (call/delegate call) security	pass
		Returned value security	pass
		Selfdestruct function security	pass
3	Business security	Access control of owners	pass
		Business logics	pass
		Business implementations	pass
4	Integer overflow/underflow		pass
5	Reentrancy		pass
6	Exceptional reachable state		pass
7	Transaction ordering dependence		pass
8	Block properties dependence		pass
9	Pseudo random number generator (PRNG)		pass
10	DoS (Denial of Service)		pass
11	Token vesting implementation		pass
12	Fake deposit		pass
13	Event security		pass






Contract description table

Below table represents the summary of the contracts and methods in the token contract. We scanned the whole contract and listed down all the Interfaces, functions and implementations with its visibility and mutability.



Contract	Type	Bases		
L	Function Name	Visibility	Mutability	Modifiers
Context	Implementation			
L	_msgSender	Internal 		
IERC20	Interface			
L	totalSupply	External 		NO 
L	balanceOf	External 		NO 
L	transfer	External 		NO 
L	allowance	External 		NO 
L	approve	External 		NO 
L	transferFrom	External 		NO 
SafeMath	Library			
L	add	Internal 		
L	sub	Internal 		
L	sub	Internal 		
L	mul	Internal 		

L	div	Internal 		
L	div	Internal 		
Ownable	Implementation	Context		
L		Public 		NO 
L	owner	Public 		NO 
L	renounceOwnership	Public 		onlyOwner
IUniswapV2Factory	Interface			
L	createPair	External 		NO 
IUniswapV2Router02	Interface			
L	swapExactTokensForETHSupportingFeeOnTransferTokens	External 		NO 
L	factory	External 		NO 
L	WETH	External 		NO 
L	addLiquidityETH	External 		NO 
ImperialObelisk	Implementation	Context, IERC20, Ownable		
L		Public 		NO 
L	name	Public 		NO 
L	symbol	Public 		NO 
L	decimals	Public 		NO 
L	totalSupply	Public 		NO 

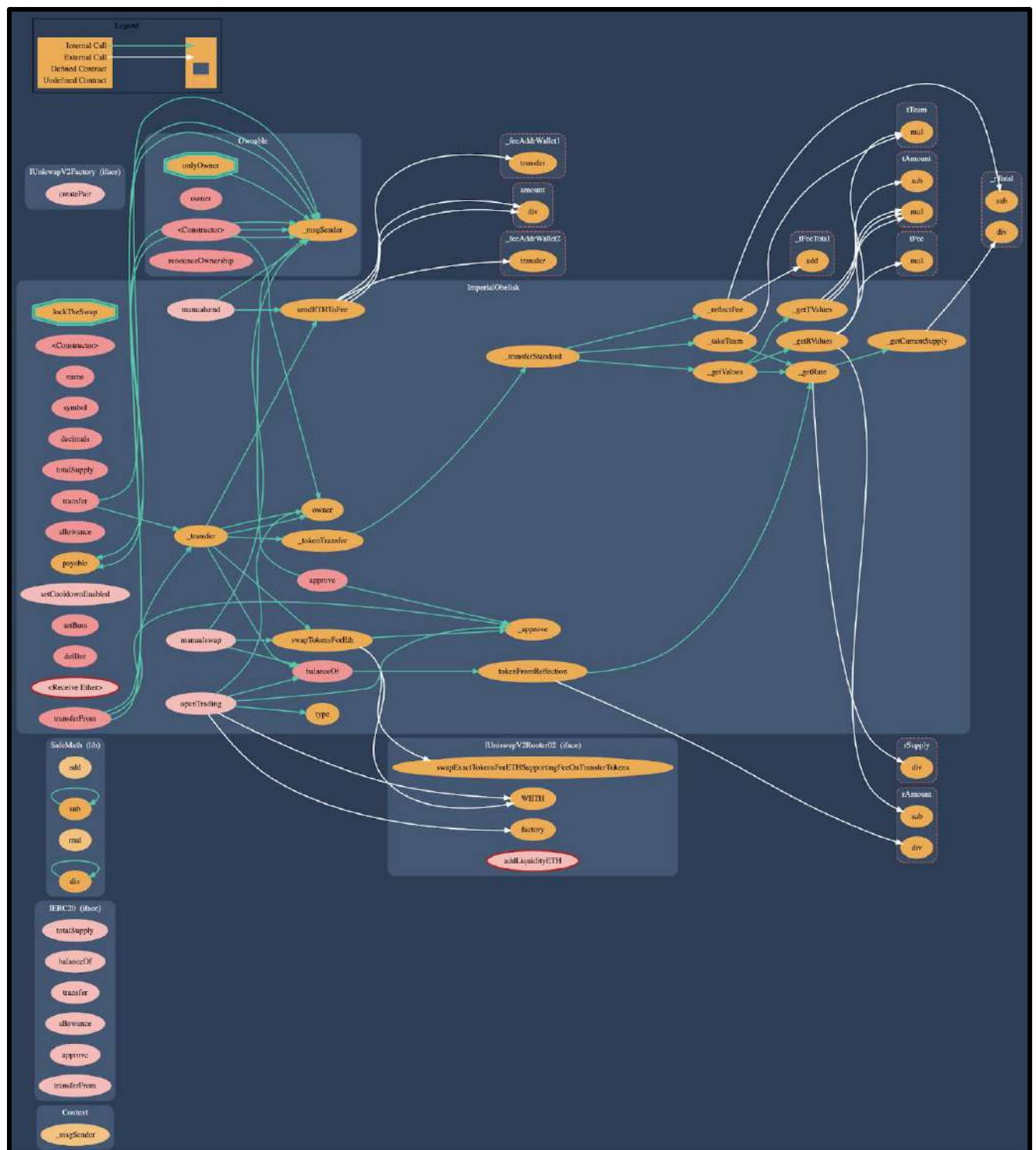
L	balanceOf	Public !		NO!
L	transfer	Public !		NO!
L	allowance	Public !		NO!
L	approve	Public !		NO!
L	transferFrom	Public !		NO!
L	setCooldownEnabled	External !		onlyOwner
L	tokenFromReflection	Private 		
L	_approve	Private 		
L	_transfer	Private 		
L	swapTokensForEth	Private 		lockTheSwap
L	sendETHToFee	Private 		
L	openTrading	External !		onlyOwner
L	setBots	Public !		onlyOwner
L	delBot	Public !		onlyOwner
L	_tokenTransfer	Private 		
L	_transferStandard	Private 		
L	_takeTeam	Private 		
L	_reflectFee	Private 		
L		External !		NO!
L	manualswap	External !		NO!
L	manualsend	External !		NO!

L	<code>_getValues</code>	Private 		
L	<code>_getTValues</code>	Private 		
L	<code>_getRValues</code>	Private 		
L	<code>_getRate</code>	Private 		
L	<code>_getCurrentSupply</code>	Private 		

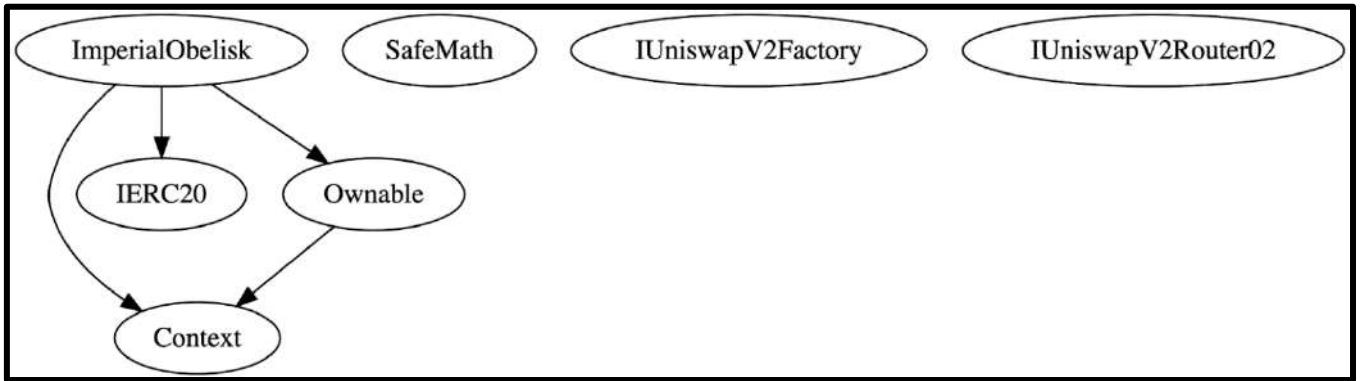
Legend

Symbol	Meaning
	Function can modify state
	Function is payable

Dependency flow



Inheritance Hierarchy



Security issue checking status

❖ High severity issues

- No high severity issues found.

❖ Medium severity issues

- No medium severity issues found.

❖ Low severity issues

- No low severity issues found

Owner privileges

Ownership has been renounced and the owner doesn't have any privileges and has no authority to make any changes now.

- ❖ The owner can renounce ownership.

```
ftrace | funcSig
function renounceOwnership() public virtual onlyOwner {
    emit OwnershipTransferred(_owner, address(0));
    _owner = address(0);
}
```

- ❖ The owner can enable/disable sell cool down.

```
ftrace | funcSig
function setCooldownEnabled(bool onoff↑) external onlyOwner {
    cooldownEnabled = onoff↑;
}
```

- ❖ The owner can open trading.

```
fttrace | funcSig
function openTrading() external onlyOwner {
    require(!tradingOpen, "trading is already open");
    IUniswapV2Router02 _uniswapV2Router = IUniswapV2Router02(
        0x7a250d5630B4cF539739dF2C5dAcb4c659F2488D
    );
    uniswapV2Router = _uniswapV2Router;
    _approve(address(this), address(uniswapV2Router), _tTotal);
    uniswapV2Pair = IUniswapV2Factory(_uniswapV2Router.factory())
        .createPair(address(this), _uniswapV2Router.WETH());
    uniswapV2Router.addLiquidityETH{value: address(this).balance}(
        address(this),
        balanceOf(address(this)),
        0,
        0,
        owner(),
        block.timestamp
    );
    swapEnabled = true;
    cooldownEnabled = true;
    _maxTxAmount = 1000000000000000000 * 10**9;
    tradingOpen = true;
    IERC20(uniswapV2Pair).approve(
        address(uniswapV2Router),
        type(uint256).max
    );
}
```

Audit conclusion

While conducting the audit of the Imperial Obelisk smart contract, it was observed that there is nothing alarming with the code.