Cyberscope

Audit Report

Satoshi Airline

December 2024

Network	POLYGON
Address	0xb02eF03245fc7DF987BBd876768E6d441b7099B6
Audited by	© cyberscope

Analysis

Critical Medium Minor / Informative Pass

Severity	Code	Description	Status
●	ST	Stops Transactions	Passed
●	OTUT	Transfers User's Tokens	Passed
●	ELFM	Exceeds Fees Limit	Passed
●	MT	Mints Tokens	Passed
●	BT	Burns Tokens	Passed
●	BC	Blacklists Addresses	Passed

Diagnostics

Critical Medium Minor / Informative

Severity	Code	Description	Status
●	L15	Local Scope Variable Shadowing	Unresolved
●	L19	Stable Compiler Version	Unresolved

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Risk Classification

The criticality of findings in Cyberscope's smart contract audits is determined by evaluating multiple variables. The two primary variables are:

1. **Likelihood of Exploitation**: This considers how easily an attack can be executed, including the economic feasibility for an attacker.
2. **Impact of Exploitation**: This assesses the potential consequences of an attack, particularly in terms of the loss of funds or disruption to the contract's functionality.

Based on these variables, findings are categorized into the following severity levels:

1. **Critical**: Indicates a vulnerability that is both highly likely to be exploited and can result in significant fund loss or severe disruption. Immediate action is required to address these issues.
2. **Medium**: Refers to vulnerabilities that are either less likely to be exploited or would have a moderate impact if exploited. These issues should be addressed in due course to ensure overall contract security.
3. **Minor**: Involves vulnerabilities that are unlikely to be exploited and would have a minor impact. These findings should still be considered for resolution to maintain best practices in security.
4. **Informative**: Points out potential improvements or informational notes that do not pose an immediate risk. Addressing these can enhance the overall quality and robustness of the contract.

Severity	Likelihood / Impact of Exploitation
Critical	Highly Likely / High Impact
Medium	Less Likely / High Impact or Highly Likely/ Lower Impact
Minor / Informative	Unlikely / Low to no Impact

Review

Contract Name	SatoshiAirline
Compiler Version	v0.8.28+commit.7893614a
Optimization	200 runs
Explorer	https://polygonscan.com/address/0xb02ef03245fc7df987bbd876768e6d441b7099b6
Address	0xb02ef03245fc7df987bbd876768e6d441b7099b6
Network	POLYGON
Symbol	JET
Decimals	8
Total Supply	500,000,000
Badge Eligibility	Yes

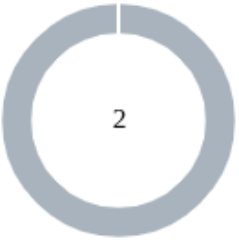
Audit Updates

Initial Audit	09 Sep 2024 https://github.com/cyberscope-io/audits/blob/main/1-jet/v1/audit.pdf
Corrected Phase 2	02 Dec 2024

Source Files

Filename	SHA256
SatoshiAirline.sol	29a516ced1be871429552648a80f0f834351739c999355e2f5988b4318da7ce9

Findings Breakdown



Critical	0
Medium	0
Minor / Informative	2

Severity	Unresolved	Acknowledged	Resolved	Other
Critical	0	0	0	0
Medium	0	0	0	0
Minor / Informative	2	0	0	0

L15 - Local Scope Variable Shadowing

Criticality	Minor / Informative
Location	SatoshiAirline.sol#L619
Status	Unresolved

Description

Local scope variable shadowing occurs when a local variable with the same name as a variable in an outer scope is declared within a function or code block. When this happens, the local variable "shadows" the outer variable, meaning that it takes precedence over the outer variable within the scope in which it is declared.

```
address _owner
```

Recommendation

It's important to be aware of shadowing when working with local variables, as it can lead to confusion and unintended consequences if not used correctly. It's generally a good idea to choose unique names for local variables to avoid shadowing outer variables and causing confusion.

L19 - Stable Compiler Version

Criticality	Minor / Informative
Location	SatoshiAirline.sol#L6
Status	Unresolved

Description

The `^` symbol indicates that any version of Solidity that is compatible with the specified version (i.e., any version that is a higher minor or patch version) can be used to compile the contract. The version lock is a mechanism that allows the author to specify a minimum version of the Solidity compiler that must be used to compile the contract code. This is useful because it ensures that the contract will be compiled using a version of the compiler that is known to be compatible with the code.

```
pragma solidity ^0.8.24;
```

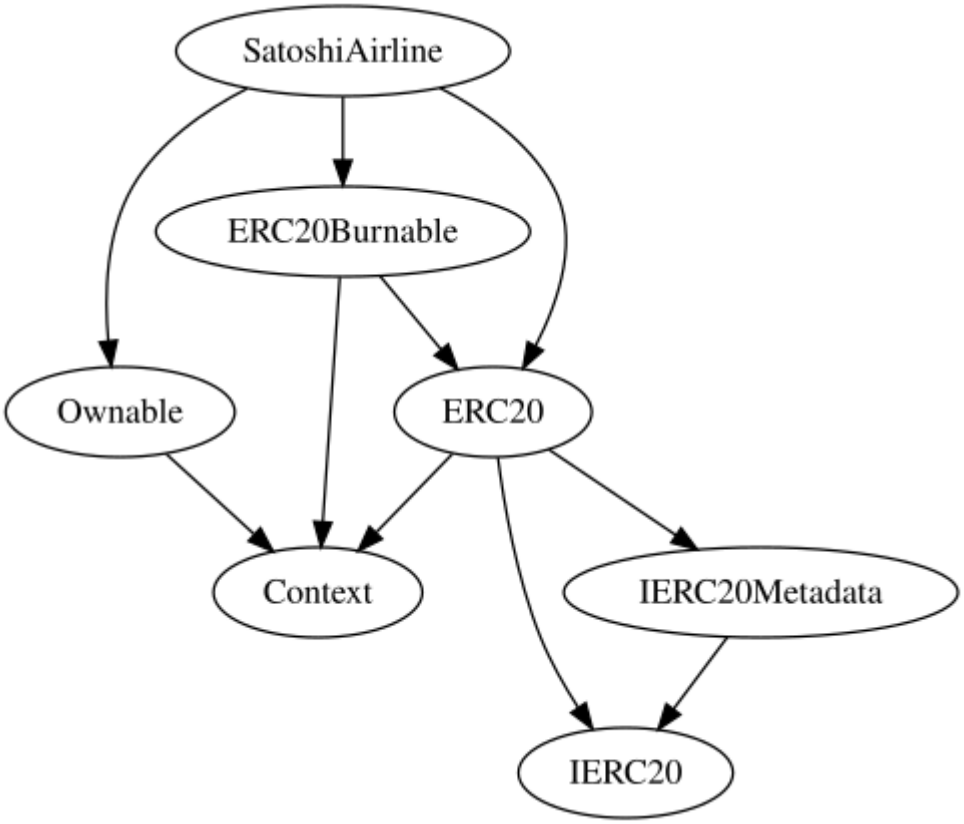
Recommendation

The team is advised to lock the pragma to ensure the stability of the codebase. The locked pragma version ensures that the contract will not be deployed with an unexpected version. An unexpected version may produce vulnerabilities and undiscovered bugs. The compiler should be configured to the lowest version that provides all the required functionality for the codebase. As a result, the project will be compiled in a well-tested LTS (Long Term Support) environment.

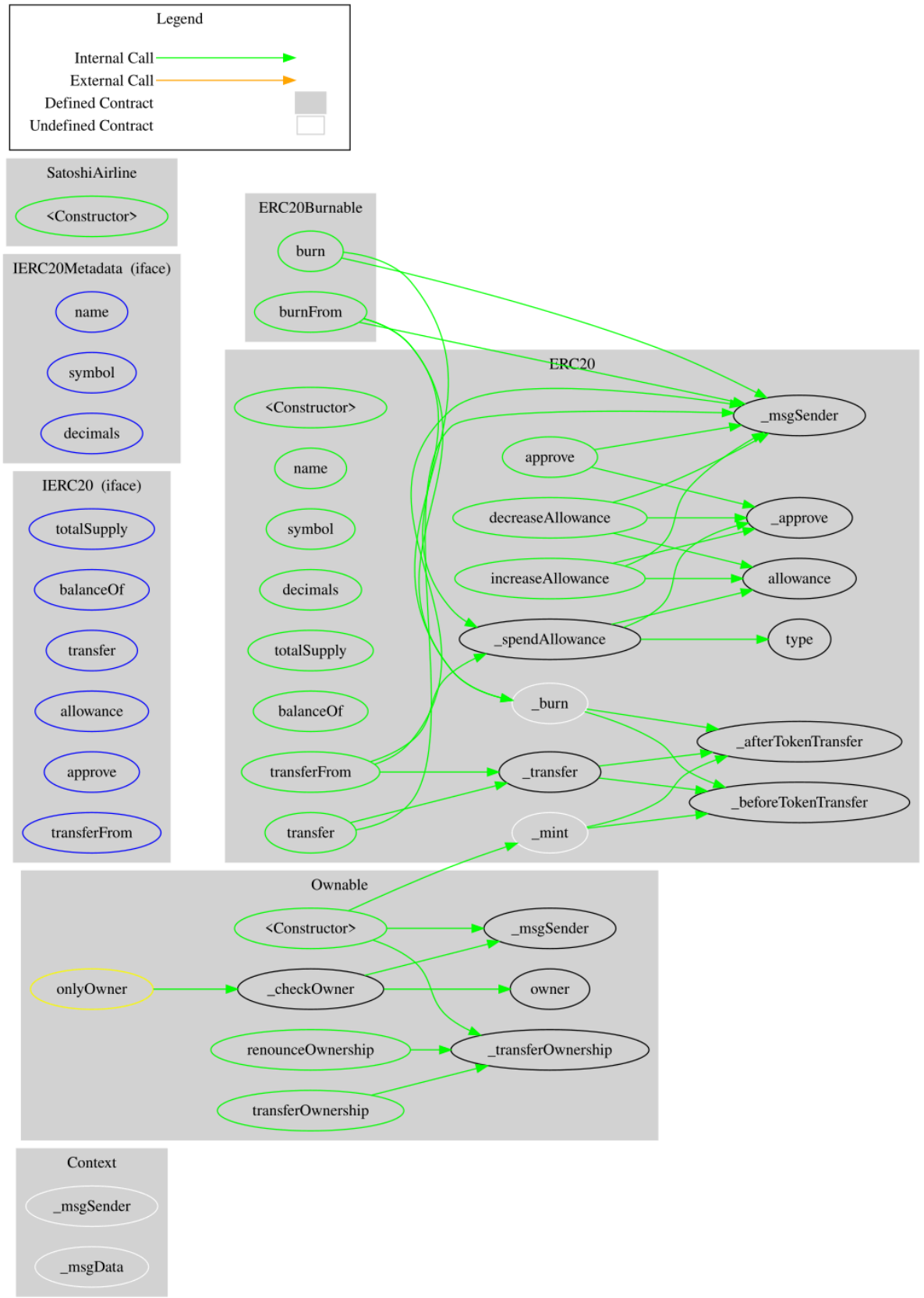
Functions Analysis

Contract	Type	Bases		
	Function Name	**Visibility**	**Mutability**	**Modifiers**
SatoshiAirline	Implementation	ERC20, ERC20Burnable, Ownable		
		Public	✓	ERC20

Inheritance Graph



Flow Graph


Legend
Internal Call
External Call
Defined Contract
Undefined Contract
SatoshiAirline
<Constructor>
IERC20Metadata (iface)
name
symbol
decimals
IERC20 (iface)
totalSupply
balanceOf
transfer
allowance
approve
transferFrom
ERC20Burnable
burn
burnFrom
ERC20
<Constructor>
name
symbol
decimals
totalSupply
balanceOf
transferFrom
transfer
_msgSender
approve
_approve
decreaseAllowance
allowance
increaseAllowance
_spendAllowance
type
_burn
_afterTokenTransfer
_transfer
_beforeTokenTransfer
_mint
Ownable
<Constructor>
_msgSender
onlyOwner
_checkOwner
owner
renounceOwnership
_transferOwnership
transferOwnership
Context
_msgSender
_msgData

Summary

Satoshi Airline contract implements a token mechanism. This audit investigates security issues, business logic concerns and potential improvements. Satoshi Airline 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.

The contract's ownership has been renounced. The information regarding the transaction can be accessed through the following link:

https://polygonscan.com/tx/0x9b30e2c40a7c93fee8492e945cd9132ab492a97cb045be8801faceb3fd2f6921

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About Cyberscope

Cyberscope is a blockchain cybersecurity company that was founded with the vision to make web3.0 a safer place for investors and developers. Since its launch, it has worked with thousands of projects and is estimated to have secured tens of millions of investors' funds.

Cyberscope is one of the leading smart contract audit firms in the crypto space and has built a high-profile network of clients and partners.

The Cyberscope team

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