

Audit Report Parline

March 2024

Network MATIC

Address 0xEb8585c7B85e6bdaDF9a1FD9d23FF9e6e9e2c672

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Analysis

CriticalMediumMinor / InformativePass

Severity	Code	Description	Status
•	ST	Stops Transactions	Passed
•	OTUT	Transfers User's Tokens	Passed
•	ELFM	Exceeds Fees Limit	Passed
•	MT	Mints Tokens	Passed
•	ВТ	Burns Tokens	Passed
•	ВС	Blacklists Addresses	Passed



Diagnostics

Critical
 Medium
 Minor / Informative

Severity	Code	Description	Status
•	L18	Multiple Pragma Directives	Unresolved
•	L09	Dead Code Elimination	Unresolved
•	L19	Stable Compiler Version	Unresolved



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Review

Contract Name	ParlineToken
Compiler Version	v0.8.22+commit.4fc1097e
Optimization	200 runs
Explorer	https://polygonscan.com/address/0xeb8585c7b85e6bdadf9a1fd 9d23ff9e6e9e2c672
Address	0xeb8585c7b85e6bdadf9a1fd9d23ff9e6e9e2c672
Network	MATIC
Symbol	PRLN
Decimals	18
Total Supply	2,000,000,000

Audit Updates

Initial Audit	14 Mar 2024
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Source Files

Filename	SHA256
ParlineToken.sol	4d8ce9374f5518757237beec7924c5e9048513a42d3ef97e1cadeba81fe 4de71



Findings Breakdown



Sev	rerity	Unresolved	Acknowledged	Resolved	Other
•	Critical	0	0	0	0
•	Medium	0	0	0	0
	Minor / Informative	3	0	0	0



L09 - Dead Code Elimination

Criticality	Minor / Informative
Location	ParlineToken.sol#L195
Status	Unresolved

Description

In Solidity, dead code is code that is written in the contract, but is never executed or reached during normal contract execution. Dead code can occur for a variety of reasons, such as:

- Conditional statements that are always false.
- Functions that are never called.
- Unreachable code (e.g., code that follows a return statement).

Dead code can make a contract more difficult to understand and maintain, and can also increase the size of the contract and the cost of deploying and interacting with it.

```
function _contextSuffixLength() internal view virtual returns (uint256) {
   return 0;
}
```

Recommendation

To avoid creating dead code, it's important to carefully consider the logic and flow of the contract and to remove any code that is not needed or that is never executed. This can help improve the clarity and efficiency of the contract.



L18 - Multiple Pragma Directives

Criticality	Minor / Informative
Location	ParlineToken.sol#L9,174,205,307,389,417,735,774
Status	Unresolved

Description

If the contract includes multiple conflicting pragma directives, it may produce unexpected errors. To avoid this, it's important to include the correct pragma directive at the top of the contract and to ensure that it is the only pragma directive included in the contract.

```
pragma solidity ^0.8.20;
```

Recommendation

It is important to include only one pragma directive at the top of the contract and to ensure that it accurately reflects the version of Solidity that the contract is written in.

By including all required compiler options and flags in a single pragma directive, the potential conflicts could be avoided and ensure that the contract can be compiled correctly.



L19 - Stable Compiler Version

Criticality	Minor / Informative
Location	ParlineToken.sol#L9,174,205,307,389,417,735,774
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 ^0.8.20;
pragma solidity ^0.8.20;
pragma solidity ^0.8.20;
...
```

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	Туре	Bases		
	Function Name	Visibility	Mutability	Modifiers
IERC20Errors	Interface			
IERC721Errors	Interface			
IERC1155Error	Interface			
Context	Implementation			
	_msgSender	Internal		
	_msgData	Internal		
	_contextSuffixLength	Internal		
Ownable	Implementation	Context		
		Public	✓	-
	owner	Public		-
	_checkOwner	Internal		
	renounceOwnership	Public	✓	onlyOwner
	transferOwnership	Public	✓	onlyOwner
	_transferOwnership	Internal	✓	



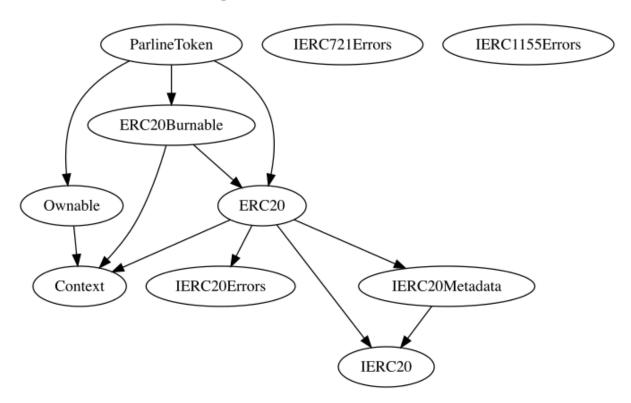
IERC20	Interface			
	totalSupply	External		-
	balanceOf	External		-
	transfer	External	✓	-
	allowance	External		-
	approve	External	✓	-
	transferFrom	External	✓	-
IERC20Metadat	Interface	IERC20		
	name	External		-
	symbol	External		-
	decimals	External		-
ERC20	Implementation	Context, IERC20, IERC20Meta data, IERC20Error s		
		Public	✓	-
	name	Public		-
	symbol	Public		-
	decimals	Public		-
	totalSupply	Public		-
	balanceOf	Public		-



	transfer	Public	✓	-
	allowance	Public		-
	approve	Public	✓	-
	transferFrom	Public	✓	-
	_transfer	Internal	✓	
	_update	Internal	✓	
	_mint	Internal	✓	
	_burn	Internal	✓	
	_approve	Internal	✓	
	_approve	Internal	✓	
	_spendAllowance	Internal	✓	
ERC20Burnable	Implementation	Context, ERC20		
	burn	Public	✓	-
	burnFrom	Public	✓	-
ParlineToken	Implementation	ERC20, ERC20Burna ble, Ownable		
		Public	✓	ERC20 Ownable

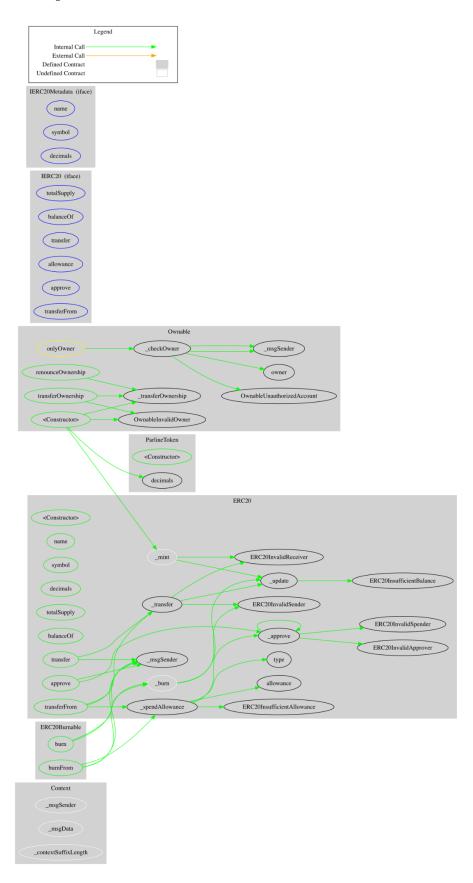


Inheritance Graph





Flow Graph





Summary

Parline contract implements a token mechanism. This audit investigates security issues, business logic concerns, and potential improvements. Parline is an interesting project that has a friendly and growing community. The Smart Contract analysis reported no compiler errors 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.



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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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