Approved

SMART CONTRACT
SECURITY AUDIT

APES

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December, 2023

Website: Approved.ltd

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Disclaimer

This is a comprehensive report based on our automated and manual examination of cybersecurity vulnerabilities and framework flaws of the project's smart contract.

Reading the full analysis report is essential to build your understanding of project's security level. It is crucial to take note, though we have done our best to perform this analysis and report, that you should not rely on the our research and cannot claim what it states or how we created it.

Before making any judgments, you have to conduct your own independent research.

We will discuss this in more depth in the following disclaimer - please read it fully.

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Security analysis is based only on the smart contracts. No applications or operations were reviewed for security. No product code has been reviewed.

Procedure

Our analysis contains following steps:

1. Project Analysis;

2. Unit Testing:
   - Smart contract functions will be unit tested on multiple parameters and under multiple conditions to ensure that all paths of functions are functioning as intended.
   - In this phase intended behaviour of smart contract is verified.
   - In this phase, we would also ensure that smart contract functions are not consuming unnecessary gas.
   - Gas limits of functions will be verified in this stage.

3. Automated Testing:
   - Mythril
   - Oyente
   - Manticore
   - Solgraph

Terminology

We categorize the finding into 4 categories based on their vulnerability:

- Low-severity issue — less important, must be analyzed
- Medium-severity issue — important, needs to be analyzed and fixed
- High-severity issue —important, might cause vulnerabilities, must be analyzed and fixed
- Critical-severity issue —serious bug causes, must be analyzed and fixed.

Limitations

The security audit of Smart Contract cannot cover all vulnerabilities. Even if no vulnerabilities are detected in the audit, there is no guarantee that future smart contracts are safe. Smart contracts are in most cases safeguarded against specific sorts of attacks. In order to find as many flaws as possible, we carried out a comprehensive smart contract audit. Audit is a document that is not legally binding and guarantees nothing.

Basic Security Recommendation

Unlike hardware and paper wallets, hot wallets are connected to the internet and store private keys online, which exposes them to greater risk. If a company or an individual holds significant amounts of cryptocurrency in a hot wallet, they should consider using MultiSig addresses. Wallet security is enhanced when private keys are stored in different locations and are not controlled by a single entity.

Token Contract Details for 13.12.2023

Contract Name: **StandardToken**

Deployed address: **0x7E2cfE1D55dFa63c8a1Bf989C5335419D912e37A**

Total Supply: **100,000,000**

Token Tracker: **APES**

Token holders: **536**

Transactions count: **598**

Top 100 holders dominance: **100.00%**

Audit Details

Project Name: **APES**

Language: **Solidity**

Compiler Version: **v0.8.4**

Blockchain: **BSC**

Social Profiles

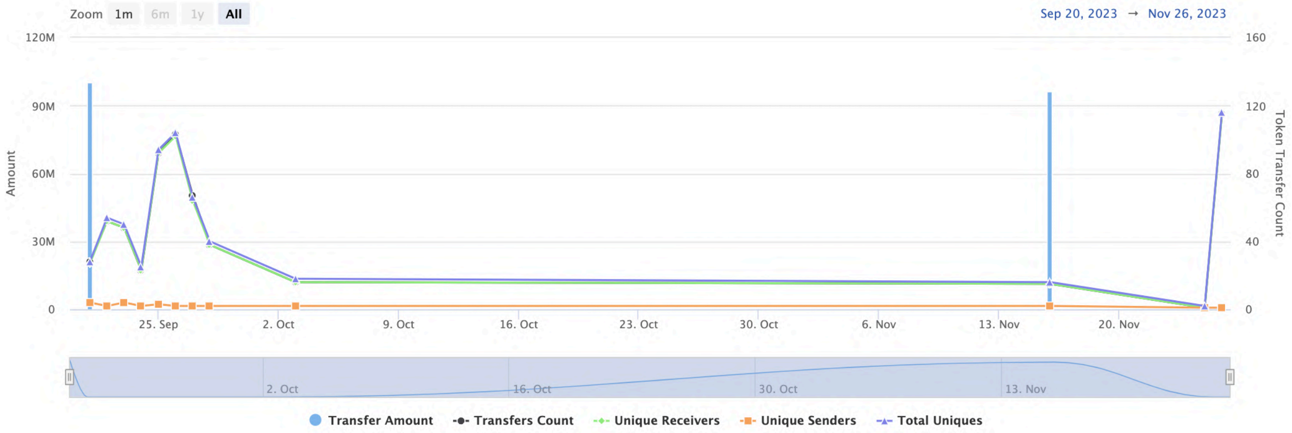
Project Website: **https://www.theageofapes.com/**

Project Twitter: **https://twitter.com/theageofapes**

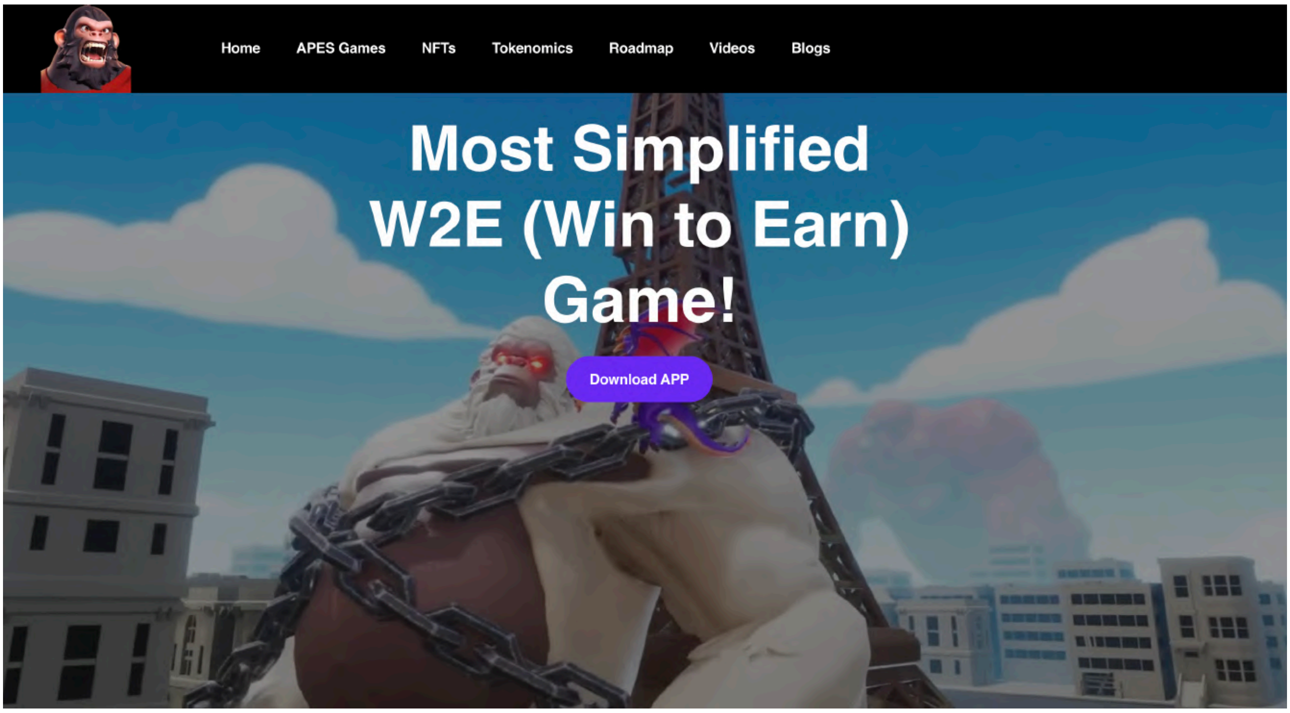
Project Telegram: **https://t.me/theageofapes**

Project Instagram: **https://www.instagram.com/theageofapes/**

Token Analytics



Project Website Overview



✓JavaScript errors hasn’t been found.
✓Malware pop-up windows hasn’t been detected.
✓No issues with loading elements, code, or stylesheets.

Vulnerabilities checking

Issue Description	Checking Status
Compiler Errors	Completed
Delays in Data Delivery	Completed
Re-entrancy	Completed
Transaction-Ordering Dependence	Completed
Timestamp Dependence	Completed
Shadowing State Variables	Completed
DoS with Failed Call	Completed
DoS with Block Gas Limit	Completed
Outdated Complier Version	Completed
Assert Violation	Completed
Use of Deprecated Solidity Functions	Completed
Integer Overflow and Underflow	Completed
Function Default Visibility	Completed
Malicious Event Log	Completed
Math Accuracy	Completed
Design Logic	Completed
Fallback Function Security	Completed
Cross-function Race Conditions	Completed
Safe Zeppelin Module	Completed

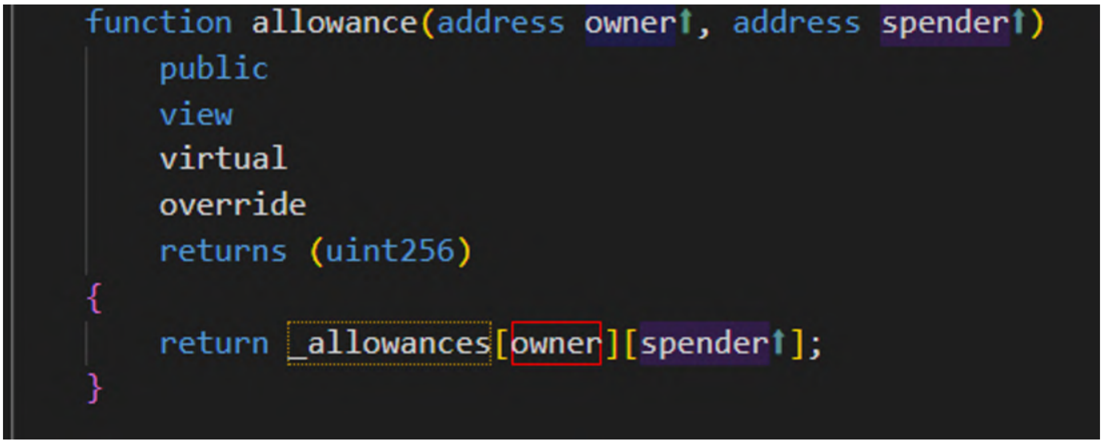
Security Issues

1) Local variable shadowing:

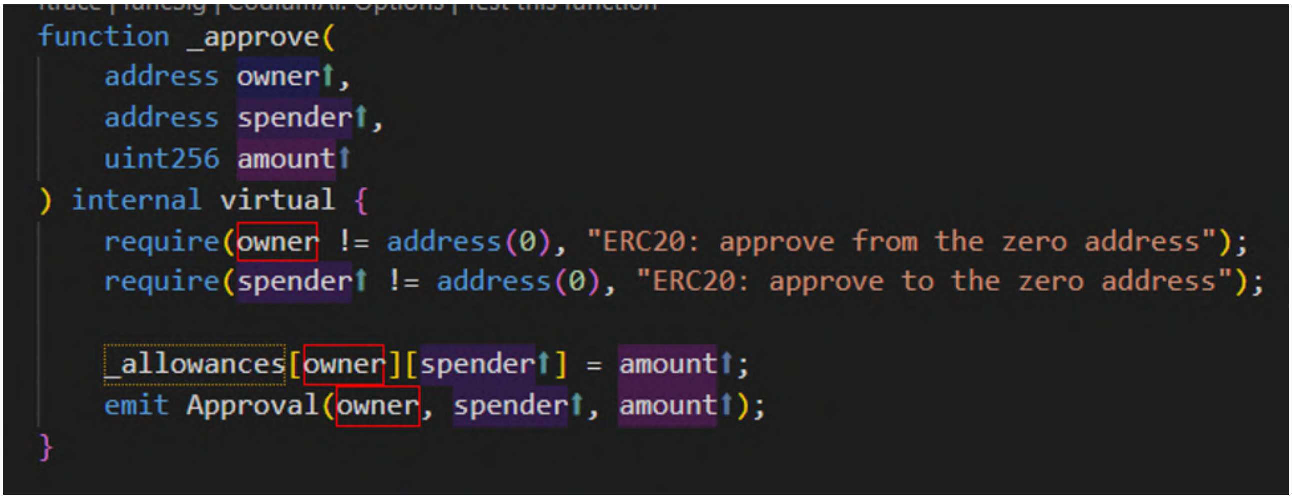
Check: shadowing-local

Severity: Low

Confidence: **High**



```
function allowance(address owner, address spender)
    public
    view
    virtual
    override
    returns (uint256)
{
    return _allowances[owner][spender];
}
```



```
function _approve(
    address owner,
    address spender,
    uint256 amount
) internal virtual {
    require(owner != address(0), "ERC20: approve from the zero address");
    require(spender != address(0), "ERC20: approve to the zero address");

    _allowances[owner][spender] = amount;
    emit Approval(owner, spender, amount);
}
```

L557 and L758

Description:

Detection of shadowing using local variables.

Recommendation:

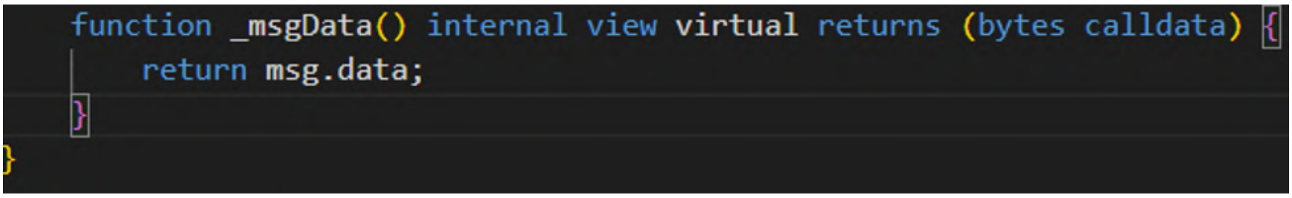
Rename the local variables that shadow another component.

2) Dead-Code:

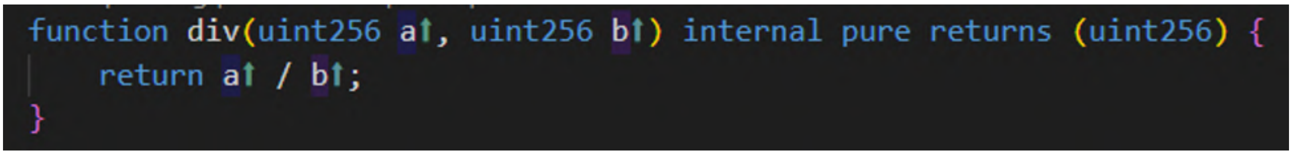
Check: dead code

Severity: Low

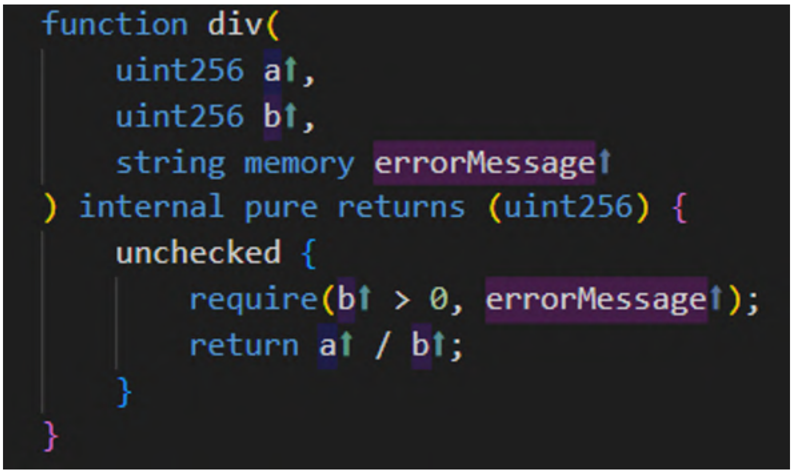
Confidence: **Medium**



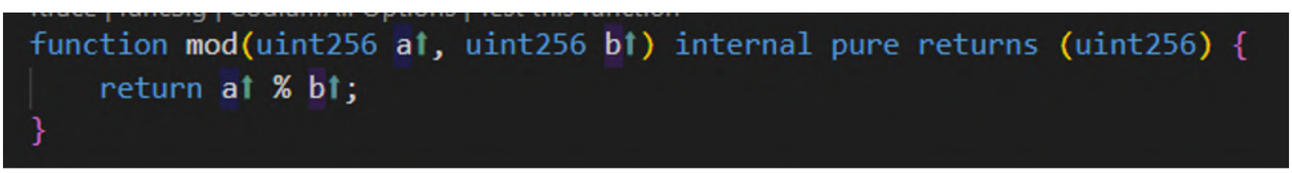
```
    function _msgData() internal view virtual returns (bytes calldata) {
        return msg.data;
    }
}
```



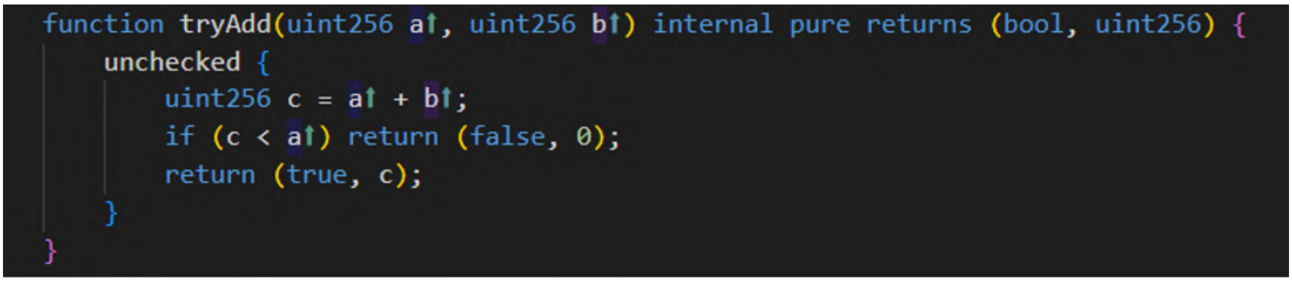
```
function div(uint256 a↑, uint256 b↑) internal pure returns (uint256) {
    return a↑ / b↑;
}
```



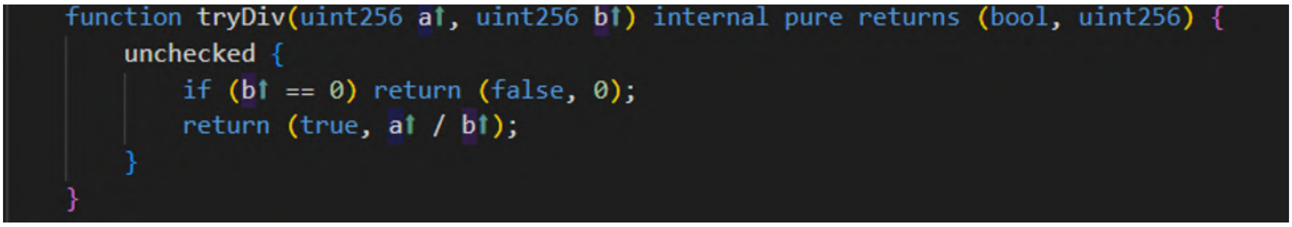
```
function div(
    uint256 a↑,
    uint256 b↑,
    string memory errorMessage↑
) internal pure returns (uint256) {
    unchecked {
        require(b↑ > 0, errorMessage↑);
        return a↑ / b↑;
    }
}
```



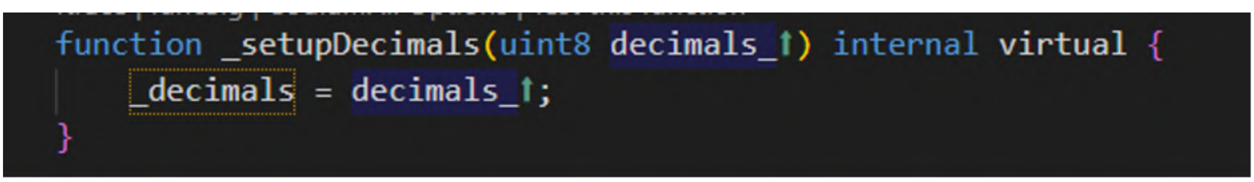
```
function mod(uint256 a↑, uint256 b↑) internal pure returns (uint256) {
    return a↑ % b↑;
}
```



```
function tryAdd(uint256 a↑, uint256 b↑) internal pure returns (bool, uint256) {
    unchecked {
        uint256 c = a↑ + b↑;
        if (c < a↑) return (false, 0);
        return (true, c);
    }
}
```



```
function tryDiv(uint256 a, uint256 b) internal pure returns (bool, uint256) {
    unchecked {
        if (b == 0) return (false, 0);
        return (true, a / b);
    }
}
```



```
function _setupDecimals(uint8 decimals_) internal virtual {
    _decimals = decimals_;
}
```

L110-112, L324-326, L380-389, L340-342, L406-415, L310-312, L211-217, L253-258, L776-778

Description:

A function that is not sued.

Recommendation:

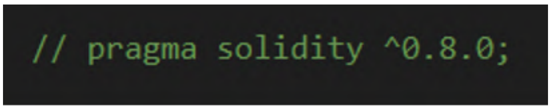
It is recommended to remove unused functions.

1) Incorrect versions of solidity:

Check: solc-version

Severity: Low

Confidence: **High**



```
// pragma solidity ^0.8.0;
```

Description:

Sol frequently releases new compiler versions. Using an old version prevents access to new solidity security checks. We also recommend avoiding complex pragma statement.

Recommendation:

Deploy with of the following solidity versions.

Conclusion for project owner

Medium and Low-severity issues exist within smart contracts.

NOTE: Please check the disclaimer above and note, that the audit makes no statements or warranties on the business model, investment attractiveness, or code sustainability. Contract security report for community

SECURITY REPORT
FOR COMMUNITY

APES

Approved

Whitepaper of the project

The whitepaper of APES project has been verified on behalf of Approved team.

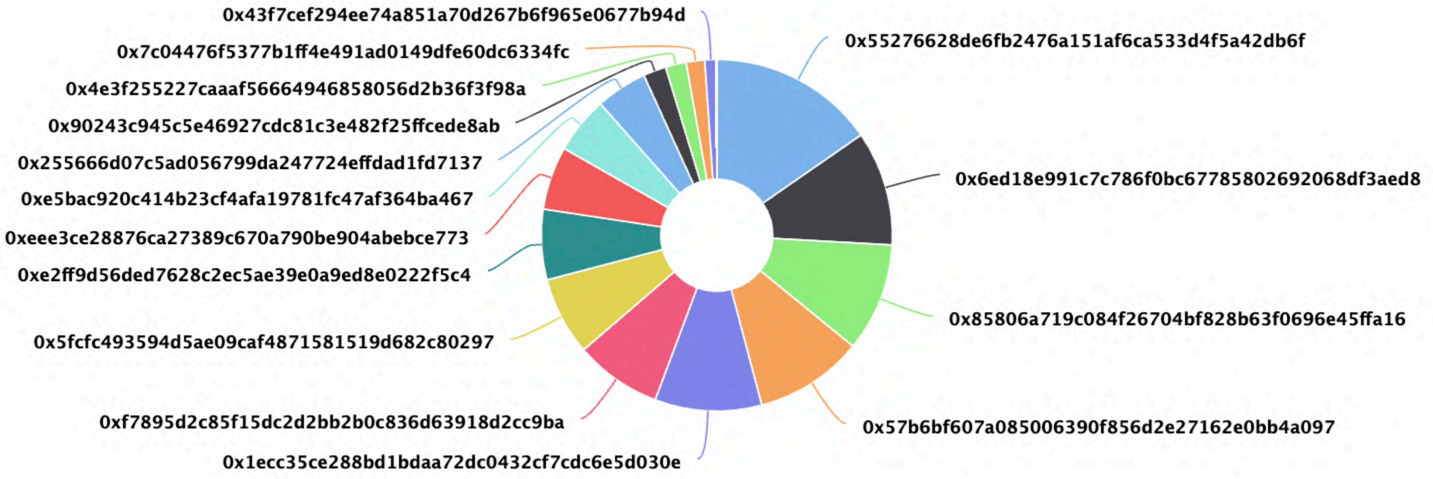
The Age of Apes

👋 Welcome To The Age Of Apes

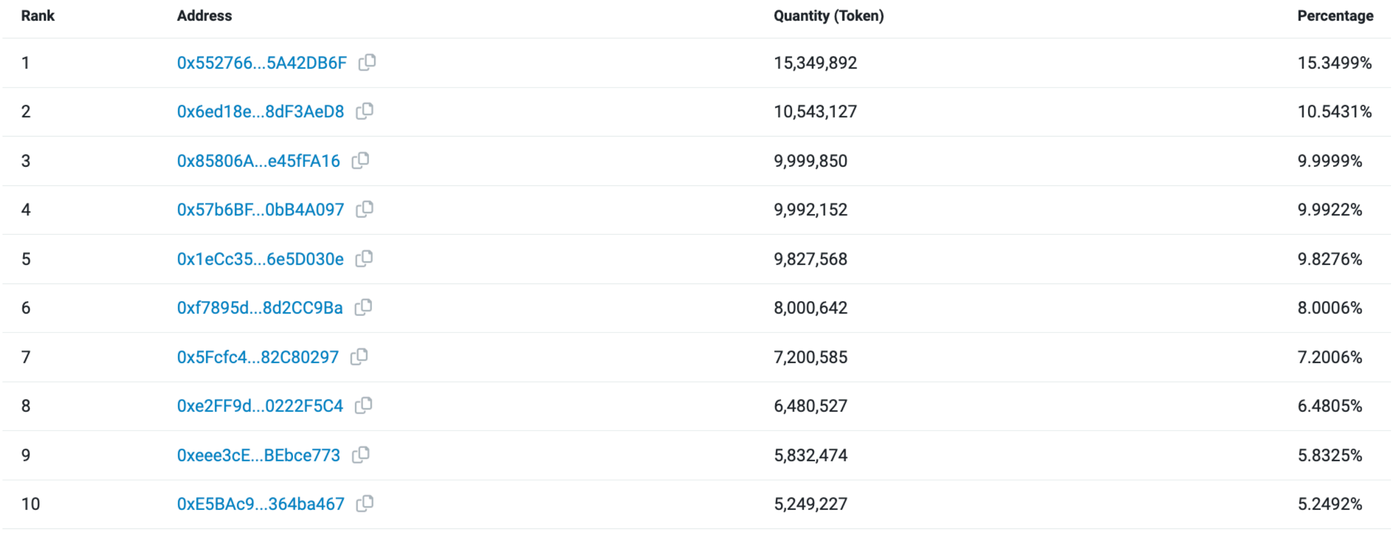
#PlayEarnOwn

Whitepaper link: **https://apes-2.gitbook.io/the-age-of-apes/**

APES Token Distribution



APES Top 10 Holders



Rank	Address	Quantity (Token)	Percentage
1	0x552766...5A42DB6F	15,349,892	15.3499%
2	0x6ed18e...8dF3AeD8	10,543,127	10.5431%
3	0x85806A...e45fFA16	9,999,850	9.9999%
4	0x57b6BF...0bB4A097	9,992,152	9.9922%
5	0x1eCc35...6e5D030e	9,827,568	9.8276%
6	0xf7895d...8d2CC9Ba	8,000,642	8.0006%
7	0x5Fcfc4...82C80297	7,200,585	7.2006%
8	0xe2FF9d...0222F5C4	6,480,527	6.4805%
9	0xeee3cE...BEbce773	5,832,474	5.8325%
10	0xE5BAc9...364ba467	5,249,227	5.2492%

Approved Contact Info

Website: https://approved.ltd

Telegram: @team_approved

GitHub: https://github.com/Approved-Audits/smart_contracts