



# SMART CONTRACT SECURITY AUDIT

AIFIN

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was posted at Soken Github



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Website: [soken.io](https://soken.io)

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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. Manual analysis of smart contracts:
  - Deploying smart contracts on any of the network(Ropsten/Rinkeby) using Remix IDE
  - Hashes of all transaction will be recorded
  - Behaviour of functions and gas consumption is noted, as well.
3. 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.
4. 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.

More info: <https://blog.soken.io/>

# Token Contract Details for 24.03.2023

Contract Name: **AIFIN**

Deployed address: **0xbE8bAD7FEdB9a012295CBC2f018994dC43b32A24**

Total Supply: **1,000,000,000**

Token Tracker: **AIFIN**

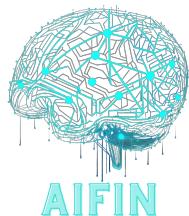
Decimals: **18**

Token holders: **68**

Transactions count: **192**

Top 100 holders dominance: **100.00%**

## Audit Details



Project Name: **AIFIN**

Language: **Solidity**

Compiler Version: **v0.8.9**

Blockchain: **Arbitrum**

## Social Profiles

Project Website: <https://aidefis.com/>

Project Twitter: <https://twitter.com/AIFINofficial>

Project Telegram: <https://t.me/AIFINOfficial>

# 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.

## Project Website SSL Certification

### Issued To

Common Name (CN) www.aidefis.com  
Organization (O) <Not Part Of Certificate>  
Organizational Unit (OU) <Not Part Of Certificate>

### Issued By

Common Name (CN) Sectigo RSA Domain Validation Secure Server CA  
Organization (O) Sectigo Limited  
Organizational Unit (OU) <Not Part Of Certificate>

# Project Website Optimization for Desktop



## Performance

Values are approximate and subject to change. The performance level is calculated directly from these metrics. [Show calculator](#)

▲ 0–49   ■ 50–89   ● 90–100



## INDICATORS

[Expand](#)

● First Contentful Paint

**0.8 sec.**

● Total Blocking Time

**0 ms**

▲ Speed Index

**3.7 sec.**

● Largest Contentful Paint

**0.8 sec.**

● Cumulative Layout Shift

**0**

# Project Website Optimization for Mobile



## Performance

Values are approximate and subject to change. The performance level is calculated directly from these metrics. [Show calculator](#)

▲ 0–49   ■ 50–89   ● 90–100



## INDICATORS

■ First Contentful Paint

**2.9 sec.**

● Total Blocking Time

**0 ms**

▲ Speed Index

**9.2 sec.**

■ Largest Contentful Paint

**3.0 sec.**

● Cumulative Layout Shift

**0**

# Contract Function Details

- [Int] \_msgSender
- [Int] \_msgData
- [Pub] owner
- [Int] \_checkOwner
- [Pub] renounceOwnership
- [Pub] transferOwnership
- [Int] \_transferOwnership
- [Pub] paused
- [Int] \_requireNotPaused
- [Int] \_requirePaused
- [Int] \_pause
- [Int] \_unpause
- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer
- [Ext] allowance
- [Ext] approve
- [Ext] transferFrom
- [Ext] name
- [Ext] symbol
- [Ext] decimals
- [Pub] name
- [Pub] symbol
- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer
- [Pub] allowance
- [Pub] approve
- [Pub] transferFrom
- [Pub] increaseAllowance
- [Pub] decreaseAllowance
- [Int] \_transfer
- [Int] \_mint
- [Int] \_burn
- [Int] \_approve
- [Int] \_spendAllowance
- [Int] \_beforeTokenTransfer
- [Int] \_afterTokenTransfer
- [Pub] pause
- [Pub] unpause
- [Int] \_beforeTokenTransfer

# 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) Presence of Overpowered Role: Informational.

### L88-90, 96-102, 761-763, 765-767

The overpowered owner (i.e., the person who has too much power) is a project design where the contract is tightly coupled to their owner (or owners); only they can manually invoke critical functions. Due to the fact that this function is only accessible from a single address, the system is heavily dependent on the address of the owner. In this case, there are scenarios that may lead to undesirable consequences for investors, e.g., if the private key of this address is compromised, then an attacker can take control of the contract.

#### **Recommendation:**

We recommend designing contracts in a trust-less manner. For instance, this functionality can be implemented in the contract's constructor.

Another option is to use a MultiSig wallet for this address. For systems that are provisioned for a single user, you can use [Ownable.sol] <https://github.com/OpenZeppelin/openzeppelin-contracts/blob/release-v2.5.0/contracts/ownership/Ownable.sol>. For systems that require provisioning users in a group, you can use [@openzeppelin/Roles.sol] or [@hq20/Whitelist.sol].

## Conclusion for project owner

Informational-severity issues exist within smart contracts.

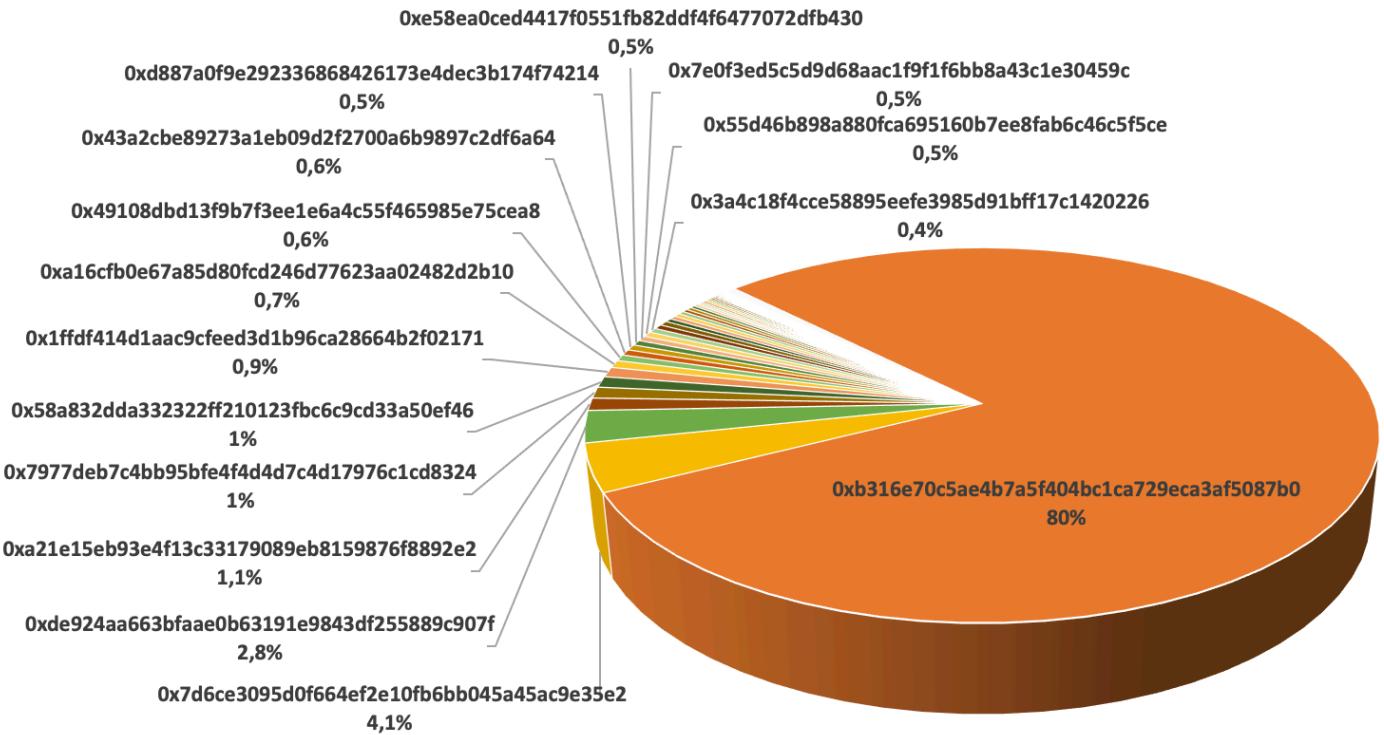
NOTE: Please check the disclaimer above and note, that audit makes no statements or warranties on business model, investment attractiveness or code sustainability.

# **SECURITY REPORT FOR COMMUNITY**

AIFIN

 soken

# AIFIN Token Distribution



## AIFIN Top 10 Holders

Rank	Address	Quantity (Token)	Percentage
1	0xb316e70c5ae4b7a5f404bc1ca729eca3af5087b0	800,250,523.997974744812868546	80.0251%
2	0x7d6ce3095d0f664ef2e10fb6bb045a45ac9e35e2	38,322,209.429702473783147147	3.8322%
3	0xde924aa663bfaae0b63191e9843df255889c907f	27,611,817.896031616085555781	2.7612%
4	0xa21e15eb93e4f13c33179089eb8159876f8892e2	10,818,257.232040160022789301	1.0818%
5	0x7977deb7c4bb95bfe4f4d4d7c4d17976c1cd8324	9,766,249.889645065371874002	0.9766%
6	0x58a832dda332322ff210123fbe6c9cd33a50ef46	9,560,187.820000205954962815	0.9560%
7	0x1ffd414d1aac9cfeed3d1b96ca28664b2f02171	8,794,987.270562423294628908	0.8795%
8	0xa16cfb0e67a85d80fc246d77623aa02482d2b10	6,587,337.219941025332090717	0.6587%
9	0x49108dbd13f9b7f3ee1e6a4c55f465985e75cea8	5,500,000	0.5500%
10	0x43a2cbe89273a1eb09d2f2700a6b9897c2df6a64	5,250,331.921176986720947742	0.5250%

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