

SMART CONTRACT SECURITY AUDIT OF



SMART CONTRACT AUDIT | TEAM KYC | PROJECT EVALUATION

RELENTLESSLY SECURING THE PUBLIC BLOCKCHAIN | MADE IN CANADA

Summary

Auditing Firm InterFi Network

Architecture InterFi "Echelon" Auditing Standard

Smart Contract Audit Approved By Chris | Blockchain Specialist at InterFi Network

Platform Solidity

Audit Check (Mandatory) Static, Software, Auto Intelligent & Manual Analysis

Project Check (Optional) KYC, Website & Socials Analysis (Not Applicable)

Consultation Request Date November 06, 2021

Report Date November 08, 2021

Audit Summary

InterFi team has performed a line-by-line manual analysis and automated review of the smart contract. The smart contract was analyzed mainly for common smart contract vulnerabilities, exploits, and manipulation hacks. According to the smart contract audit:

- HYPED's smart contract source code has LOW RISK SEVERITY.
- HYPED has PASSED the smart contract audit.
- * HYPED is the utility token of the Pumped & Hyped marketing platform. InterFi has also audited PUMPED. Please visit our GitHub to check PUMPED's audit report.

For the detailed understanding of risk severity, source code vulnerability, and functional test, kindly refer to the audit.



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Project Overview

InterFi was consulted by Hyped on November 06, 2021 to conduct a smart contract security audit of their token source code.

About Hyped Project

HYPED is the utility token of the Pumped & Hyped marketing platform and will be used for acquiring crypto-based promotional services.

Project	HYPED
Blockchain	Binance Smart Chain
Language	Solidity
Block Explorer	https://bscscan.com/address/0x0450052d1fc5791571a19d9e 26261fb2337b379b
Contract	0x0450052D1fC5791571A19d9E26261FB2337B379B

Public logo





Solidity Source Code On Blockchain (BscScan Verified Contract Source Code)

https://bscscan.com/address/0x0450052dlfc579157la19d9e2626lfb2337b379b#code

Contract Name: HYPED (BABYTOKEN)

Compiler Version: v0.7.6+commit.7338295f

Optimization Enabled: Yes with 200 runs

(Hyped is a minimal proxy contract generated by PinkSale' BABYTOKEN creator)

Solidity Source Code On InterFi GitHub

https://github.com/interfinetwork/audited-codes/blob/main/Hyped.sol

InterFi GitHub Commit

Solidity source code is committed at: 1b2b5f6e154032fce38c98032h8ddg67dku89sh

Security Audit

SHA-1 Hash

Solidity source code is audited at hash #84965dcae24fee6a007f1b353718po9si39kj90ha



Audit Scope & Methodology

The scope of this report is to audit the smart contract source code of HYPED. The source code can be viewed in its entirety on

https://bscscan.com/address/0x0450052d1fc5791571a19d9e26261fb2337b379b#code

InterFi has scanned the contract and reviewed the project for common vulnerabilities, exploits, hacks, and back-doors. Below is the list of commonly known smart contract vulnerabilities, exploits, and hacks:

Category

Re-entrancy (RE)

Unhandled Exceptions (UE)

Smart Contract Vulnerabilities

Transaction Order Dependency (TO)

Integer Overflow (IO)

Unrestricted Action (UA)

Ownership Takeover

Gas Limit and Loops

Source Code Review

Deployment Consistency

Repository Consistency

Data Consistency

Token Supply Manipulation

Access Control and Authorization

Operations Trail and Event Generation

Assets Manipulation

Liquidity Access

Functional Assessment



InterFi's Echelon Audit Standard

The aim of InterFi's "Echelon" standard is to analyze the smart contract and identify the vulnerabilities and the hacks in the smart contract. Mentioned are the steps used by ECHELON-1 to assess the smart contract:

- 1. Solidity smart contract source code reviewal:
 - Review of the specifications, sources, and instructions provided to InterFi to make sure we understand the size, scope, and functionality of the smart contract.
 - Manual review of code, which is the process of reading source code line-byline to identify potential vulnerabilities.
- 2. Static, Manual, and Automated Al analysis:
 - Test coverage analysis, which is the process of determining whether the test cases are covering the code and how much code is exercised when we run those test cases.
 - Symbolic execution, which is analysing a program to determine what inputs causes each part of a program to execute.
- 3. Best practices review, which is a review of the smart contracts to improve efficiency, effectiveness, clarify, maintainability, security, and control based on the established industry and academic practices, recommendations, and research.
- 4. Specific, itemized, actionable recommendations to help you take steps to secure your smart contracts

Automated 3P frameworks used to assess the smart contract vulnerabilities

- Slither
- Consensys MythX
- Consensys Surya
- Open Zeppelin Code Analyzer
- Solidity Code Complier



InterFi's Risk Classification

Smart contracts are generally designed to manipulate and hold funds denominated in ETH/BNB. This makes them very tempting attack targets, as a successful attack may allow the attacker to directly steal funds from the contract. Below are the typical risk levels of a smart contract:

Vulnerable: A contract is vulnerable if it has been flagged by a static analysis tool as such. As we will see later, this means that some contracts may be vulnerable because of a false-positive.

Exploitable: A contract is exploitable if it is vulnerable and the vulnerability could be exploited by an external attacker. For example, if the "vulnerability" flagged by a tool is in a function which requires to own the contract, it would be vulnerable but not exploitable.

Exploited: A contract is exploited if it received a transaction on the main network which triggered one of its vulnerabilities. Therefore, a contract can be vulnerable or even exploitable without having been exploited.

		Smart Contract
Risk severity	Meaning	Security Audit
! Critical	This level vulne	rabilities could be exploited easily, and can lead to asset loss, data
	loss, asset man	ipulation, or data manipulation. They should be fixed right away.
! High	This level vulne	rabilities are hard to exploit but very important to fix, they carry an
	elevated risk of	smart contract manipulation, which can lead to critical risk severity
! Medium	This level vulne	rabilities are should be fixed, as they carry an inherent risk of future
	exploits, and ha	acks which may or may not impact the smart contract execution.
	This level vuln	erabilities can be ignored. They are code style violations, and
! Low	informational s	statements in the code. They may not affect the smart contract
	execution	



Smart Contract - Overview

Contract information

Query	Result
Name	HYPED
Symbol	HYPED
Decimals	18
Total Supply	10,000,000,000
Owner	0xcc20c8401b581e91e33e09d1cf7db5d96ced71d2
Marketing Wallet	0x03300862b8aec085cc535b96401f9e3913fd624f
Dividend Tracker	0x576c901a2f62136f6fbfb99e6da37049d0e3414a
Reward Token	0x685fc46ef7090d1af1d247bf650de31f8369fd8e
Pair	0x070803e89161e4e95330b597c970500b3a48104e
Router	0x10ed43c718714eb63d5aa57b78b54704e256024e



Smart Contract - Static Analysis

Symbol	Meaning
	Function can be modified
	Function is payable
	Function is locked
	Function can be accessed
· ·	Important functionality

```
skHYPED**
| Implementation | ERC20, Ownable |||
   <Constructor> | Public | | 🛑 | ERC20 |
   <Receive Ether> | External ! | MO! |
   updateUniswapV2Router | Public 「 | 🛑 | onlyOwner |
   excludeFromFees | Public 📒 | 🥌 | onlyOwner |
   excludeMultipleAccountsFromFees | Public 📒 | 🥌 | onlyOwner |
   setMarketingWallet | External 📒 | 🥮 | onlyOwner |
   setRewardsFee | External ! | 🔴 | onlyOwner |
   setAutomatedMarketMakerPair | Public 👎 | 🥮 | onlyOwner |
   setMaxTxAmount | External 「 | 🛑 | onlyOwner |
   setMinimumTokensForSwap | External 📒 | 🥮 | onlyOwner |
   _setAutomatedMarketMakerPair | Private 聲 | 🥌 | |
   updateGasForProcessing | Public 📒 | 🥮 | onlyOwner |
   updateClaimWait | External 📒 | 🥮 | onlyOwner |
   getClaimWait | External | | | NO! |
  L | isExcludedFromFees | Public | |
                              |NO | |
  dividendTokenBalanceOf | Public [ | |NO! |
   excludeFromDividends | External 📒 | 🥮
                                 | onlyOwner |
   getAccountDividendsInfo | External | | | NO! |
   getAccountDividendsInfoAtIndex | External | | | NO! |
  | processDividendTracker | External ! | 🛑 |NO! |
  getLastProcessedIndex | External | | | NO! |
   getNumberOfDividendTokenHolders | External | | | NO! |
    _transfer | Internal 🛍 | 🥮
```



```
swapAndSendToFee | Private 🔐 | 🥌
L | swapAndLiquify | Private 🛍 | 🥌 | |
  swapETHForTokens | Private 😭 | 🥌
  swapTokensForEth | Private 🛍 | 🛑
  swapTokensForBUSD | Private 😭 | 🥌
   addLiquidity | Private 😭 | 🥌 | |
  swapAndSendDividends | Private 😭 | 🥮 | |
**HYPEDDividendTracker** | Implementation | Ownable, DividendPayingToken |||
L | transfer | Internal 🔒 | 🛑 | |
L | updateClaimWait | External | | 🛑 | onlyOwner |
 | getLastProcessedIndex | External | | | NO! |
L | getAccount | Public | | NO! |
L | getAccountAtIndex | Public | | NO | |
 | canAutoClaim | Private 😭 |  | |
 | setBalance | External 「 | 🛑 | onlyOwner |
  process | Public 🏮 | 🛑 |NO 🎚 |
   processAccount | Public ! | 🛑 | onlyOwner
```

Smart Contract
Security Audit



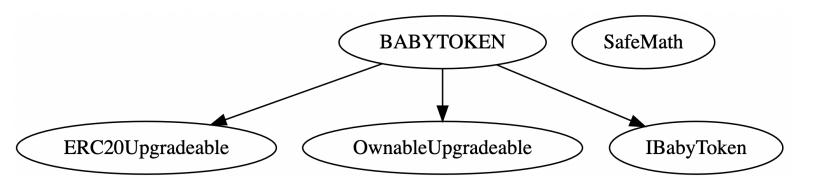
Smart Contract - Software Analysis

Function Signatures

```
88bdd9be => updateDividendTracker(address)
65b8dbc0 => updateUniswapV2Router(address)
c0246668 => excludeFromFees(address,bool)
c492f046 => excludeMultipleAccountsFromFees(address[],bool)
5d098b38 => setMarketingWallet(address)
c9d37d97 => setBUSDRewardsFee(uint256)
adefd90c => setLiquiditFee(uint256)
3f301893 => setMarketingFee(uint256,uint256)
9a7a23d6 => setAutomatedMarketMakerPair(address,bool)
455a4396 => blacklistAddress(address,bool)
ec28438a => setMaxTxAmount(uint256)
825fb668 => setMinimumTokensForSwap(uint256)
a7f7b36f => setAutomatedMarketMakerPair(address,bool)
871c128d => updateGasForProcessing(uint256)
e98030c7 => updateClaimWait(uint256)
a26579ad => getClaimWait()
30bb4cff => getTotalDividendsDistributed()
4fbee193 => isExcludedFromFees(address)
a8b9d240 => withdrawableDividendOf(address)
6843cd84 => dividendTokenBalanceOf(address)
31e79db0 => excludeFromDividends(address)
ad56c13c => getAccountDividendsInfo(address)
f27fd254 => getAccountDividendsInfoAtIndex(uint256)
700bb191 => processDividendTracker(uint256)
4e71d92d => claim()
e7841ec0 => getLastProcessedIndex()
64b0f653 => getNumberOfDividendTokenHolders()
30e0789e => transfer(address,address,uint256)
a210621e => swapAndSendToFee(uint256)
173865ad => swapAndLiquify(uint256)
2eab2841 => swapETHForTokens(uint256)
b28805f4 => swapTokensForEth(uint256)
6a5f7f7c => swapTokensForBUSD(uint256)
9cd441da => addLiguidity(uint256,uint256)
818c19dc => swapAndSendDividends(uint256)
6a474002 => withdrawDividend()
09bbedde => getNumberOfTokenHolders()
fbcbc0f1 => getAccount(address)
5183d6fd => getAccountAtIndex(uint256)
77fdb837 => canAutoClaim(uint256)
e30443bc => setBalance(address.uint256)
ffb2c479 => process(uint256)
bc4c4b37 => processAccount(address,bool)
```



<u>Inheritance Graph</u>





Smart Contract Security Audit



Smart Contract – Manual Analysis

Function	Description	Tested	Verdict
Total Supply	provides information about the total token		Passed
тосы зарргу	supply	Yes	
Balance Of	provides account balance of the owner's	V	Danson
balance of	account	Yes	Passed
Transfer	executes transfers of a specified number of	W	Barrand
Hallston	tokens to a specified address	Yes	Passed
Approve	allow a spender to withdraw a set number of	V	Passed
Approve	tokens from a specified account	Yes	
Allowance	returns a set number of tokens from a spender to	V	
Allowalice	the owner	Yes	Passed
	is an action in which the project buys back its		
Buy Back	tokens from the existing holders usually at a	NA	NA
	market price nart Contract		
Rurn	executes transfers of a specified number of		NIA
Burn	tokens to a burn address	NA	NA
Mint	executes creation of a specified number of		NIA
MINT	tokens and adds it to the total supply	NA	NA
	circulating token supply adjusts (increases or		
Rebase	decreases) automatically according to a token's	NA	NA
	price fluctuations		
Blacklist	stops specified wallets from interacting with the	V	Danasad
BIGCRIST	smart contract function modules	Yes	Passed
Lock	stops or locks all function modules of the smart	N. A	NI.
LOCK	contract	NA	NA



Important Information

- Active Owner: 0xcc20c8401b581e91e33e09d1cf7db5d96ced71d2
- Be aware that active smart contract owner privileges constitute an elevated impact to smart contract's safety and security.
- Owner can-not lock or burn user assets.
- Owner can-not stop or pause the smart contract.
- Owner can-not mint tokens after launch.
- The smart contract uses blacklist function, the contract owner can stop any wallet address from trading the token. Trade with caution.
- + HYPED's smart contract utilizes "SafeMath" function to avoid common smart contract vulnerabilities.

```
library SafeMath {
function add(uint256 a, uint256 b) internal pure returns (uint256) {
    uint256 c = a + b;
    require(c >= a, 'SafeMath: addition overflow');

    return c;
}
function sub(uint256 a, uint256 b) internal pure returns (uint256) {
    return sub(a, b, 'SafeMath: subtraction overflow');
}
uint256 c = a * b;
    require(c / a == b, 'SafeMath: multiplication overflow');

    return c;
}
```



HYPED's smart contract has I low severity issue which may or may not create any functional vulnerability.

```
"resource": " /HYPED.sol",

"owner": "_generated_diagnostic_collection_name_#0",

"severity": 8, (! Low Severity)

"Expected primary expression",

"source": "solc",
}
```

Smart Contract



Smart Contract - SWC Attacks

SWC ID	Description	Verdict
SWC-101	Integer Overflow and Underflow	Passed
SWC-102	Outdated Compiler Version	! Low
swc-103	Floating Pragma	Passed
SWC-104	Unchecked Call Return Value	Passed
SWC-105	Unprotected Ether Withdrawal	Passed
SWC-106	Unprotected SELFDESTRUCT Instruction	Passed
SWC-107	Re-entrancy Company of the Company o	Passed
SWC-108	State Variable Default Visibility	Passed
SWC-109	Uninitialized Storage Pointer	Passed
SWC-110	Assert Violation Smart Contract	Passed
swc-111	Use of Deprecated Solidity Functions	Passed
SWC-112	Delegate Call to Untrusted Callee	Passed
SWC-113	DoS with Failed Call	Passed
SWC-114	Transaction Order Dependence	Passed
SWC-115	Authorization through tx.origin	Passed
SWC-116	Block values as a proxy for time	Passed
SWC-117	Signature Malleability	Passed
SWC-118	Incorrect Constructor Name	Passed

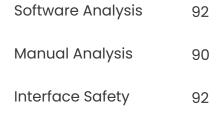


SWC-119	Shadowing State Variables	Passed
SWC-120	Weak Sources of Randomness from Chain Attributes	Passed
SWC-121	Missing Protection against Signature Replay Attacks	Passed
SWC-122	Lack of Proper Signature Verification	Passed
SWC-123	Requirement Violation	Passed
SWC-124	Write to Arbitrary Storage Location	Passed
SWC-125	Incorrect Inheritance Order	Passed
SWC-126	Insufficient Gas Griefing	Passed
SWC-127	Arbitrary Jump with Function Type Variable	Passed
SWC-128	DoS With Block Gas Limit	Passed
SWC-129	Typographical Error	Passed
SWC-130	Right-To-Left-Override control character (U+202E)	Passed
SWC-131	Presence of unused variables	Passed
SWC-132	Unexpected Ether balance	Passed
SWC-133	Hash Collisions With Multiple Variable Length Arguments	Passed
SWC-134	Message call with hardcoded gas amount	Passed
SWC-135	Code With No Effects (Irrelevant/Dead Code)	Passed
SWC-136	Unencrypted Private Data On-Chain	Passed



Smart Contract - Risk Status & Radar Chart

Risk Severity	Status
! Critical	None critical severity issues identified
! High	None high severity issues identified
! Medium	None medium severity issues identified
! Low	1 low severity issue identified
Passed	41 functions and instances verified and passed
	Score out of 100
	Compiler Check 100 95
	Interface Safety 85 Static Analysis 75
	Manual Analysis Software Analysis
	Compiler Check 95
	Static Analysis 95





Auditor's Verdict

InterFi team has performed a line-by-line manual analysis and automated review of the smart contract. The smart contract was analyzed mainly for common smart contract vulnerabilities, exploits, and manipulation hacks.

HYPED's smart contract source code has LOW RISK SEVERITY.

HYPED has PASSED the smart contract audit.



Smart Contract Security Audit

Auditor's Note:

- Be aware that active smart contract owner privileges constitute an elevated impact to smart contract's safety and security.
- Project owner's KYC isn't checked and verified due to out of scope.
- Project's liquidity pair isn't checked and verified due to out of scope.
- Project website is not checked due to out of scope. The website hasn't been reviewed for SSL and lighthouse report.



Important Disclaimer

InterFi Network provides contract auditing and project verification services for blockchain projects. The purpose of the audit is to analyse the on-chain smart contract source code, and to provide basic overview of the project. This report should not be transmitted, disclosed, referred to, or relied upon by any person for any purposes without InterFi's prior written consent.

InterFi provides the easy-to-understand assessment of the project, and the smart contract (otherwise known as the source code). The audit makes no statements or warranties on the security of the code. It also cannot be considered as an enough assessment regarding the utility and safety of the code, bug-free status, or any other statements of the contract. While we have used all the data at our disposal to provide the transparent analysis, it is important to note that you should not rely on this report only — we recommend proceeding with several independent audits and a public bug bounty program to ensure the security of smart contracts. Be aware that smart contracts deployed on a blockchain aren't resistant from external vulnerability, or a hack. Be aware that active smart contract owner privileges constitute an elevated impact to smart contract's safety and security. Therefore, InterFi does not guarantee the explicit security of the audited smart contract.

The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

This report should not be considered as an endorsement or disapproval of any project or team.

The information provided on this report does not constitute investment advice, financial advice, trading advice, or any other sort of advice and you should not treat any of the report's content as such. Do conduct your own due diligence and consult your financial advisor before making any investment decisions.



About InterFi Network

InterFi Network provides intelligent blockchain solutions. InterFi is developing an ecosystem that is seamless and responsive. Some of our services: Blockchain Security, Token Launchpad, NFT Marketplace, etc. InterFi's mission is to interconnect multiple services like Blockchain Security, DeFi, Gaming, and Marketplace under one ecosystem that is seamless, multi-chain compatible, scalable, secure, fast, responsive, and easy-to-use.

InterFi is built by a decentralized team of UI experts, contributors, engineers, and enthusiasts from all over the world. Our team currently consists of 6+ core team members, and 10+ casual contributors. InterFi provides manual, static, and automatic smart contract analysis, to ensure that project is checked against known attacks and potential vulnerabilities.

To learn more, visit https://interfi.network

To view our audit portfolio, visit https://github.com/interfinetwork

To book an audit, message https://t.me/interfiaudits





