

Security Assessment Report

InfinityName

18 Oct 2025

This security assessment report was prepared by
SolidityScan.com, a cloud-based Smart Contract Scanner.

Table of Contents

01 Vulnerability Classification and Severity

02 Executive Summary

03 Findings Summary

04 Vulnerability Details

CONTROLLED LOW-LEVEL CALL

REENTRANCY

WITHDRAWAL QUEUE ORDERING BUGS

PERMIT2 MISUSE WRONG DOMAIN SEPARATOR

ACCOUNT EXISTENCE CHECK FOR LOW LEVEL CALLS

SUPPORTSINTERFACE() CALLS MAY REVERT

NFT APPROVAL MISCONFIGURATION

UNPROTECTED ETHER WITHDRAWAL

UNVETTED REFERRER ALLOWS UNIVERSAL DISCOUNT AND REFERRAL SIPHONING

ERC777 CALLBACK REENTRANCY

GETPENDINGWITHDRAWAL HIDES BALANCES FOR NON-CURRENT FEERECIPIENT

RESCUE TOKEN FUNCTION UNSAFE

EVENT BASED REENTRANCY

USE OF FLOATING PRAGMA

MISSING EVENTS

NONREENTRANT MODIFIER PLACEMENT

OUTDATED COMPILER VERSION

USE OWNABLE2STEP

HARD-CODED ADDRESS DETECTED

AVOID ARITHMETIC DIRECTLY WITHIN ARRAY INDICES

CONTRACT CALLS DISABLEINITIALIZERS IN IT'S CONSTRUCTOR BUT ALSO CONTAINS A
INITIALIZATION FUNCTION WHICH UTILIZES THE INITIALIZER MODIFIER

CONTRACT NAME SHOULD USE PASCALCASE

MISSING @AUTHOR IN NATSPEC COMMENTS FOR CONTRACT DECLARATION

MISSING @DEV IN NATSPEC COMMENTS FOR CONTRACT DECLARATION

MISSING @DEV IN NATSPEC COMMENTS FOR FUNCTIONS

MISSING INDEXED KEYWORDS IN EVENTS

MISSING @INHERITDOC ON OVERRIDE FUNCTIONS

MISSING NATSPEC COMMENTS IN SCOPE BLOCKS

MISSING NATSPEC DESCRIPTIONS FOR PUBLIC VARIABLE DECLARATIONS

MISSING @NOTICE IN NATSPEC COMMENTS FOR CONSTRUCTORS

MISSING @NOTICE IN NATSPEC COMMENTS FOR FUNCTIONS

MISSING PAYABLE IN CALL FUNCTION

MISSING UNDERSCORE IN NAMING VARIABLES

NAME MAPPING PARAMETERS

RETURN INSIDE LOOP

REVERT STATEMENTS WITHIN EXTERNAL AND PUBLIC FUNCTIONS CAN BE USED TO
PERFORM DOS ATTACKS

UNNAMED FUNCTION PARAMETERS

ABI ENCODE IS LESS EFFICIENT THAN ABI ENCODEPACKED

ARRAY LENGTH CACHING

AVOID RE-STORING VALUES

AVOID ZERO-TO-ONE STORAGE WRITES

CHEAPER CONDITIONAL OPERATORS

CHEAPER INEQUALITIES IN IF()

DEFAULT INT VALUES ARE MANUALLY RESET

DEFINE CONSTRUCTOR AS PAYABLE

FUNCTIONS CAN BE IN-LINED

REVERTING FUNCTIONS CAN BE PAYABLE

GAS INEFFICIENCY DUE TO MULTIPLE OPERANDS IN SINGLE IF/ELSEIF CONDITION

GAS OPTIMIZATION IN INCREMENTS

HARDCODED GAS IN FUNCTION CALLS

INTERNAL FUNCTIONS NEVER USED

LONG NUMBER LITERALS

NAMED RETURN OF LOCAL VARIABLE SAVES GAS AS COMPARED TO RETURN STATEMENT

OPTIMIZING ADDRESS ID MAPPING

PUBLIC CONSTANTS CAN BE PRIVATE

STORAGE VARIABLE CACHING IN MEMORY

STORING STORAGE VARIABLES IN MEMORY

UNNECESSARY CHECKED ARITHMETIC IN LOOP






USE SELFBALANCE() INSTEAD OF ADDRESS(THIS).BALANCE

05 Scan History

06 Disclaimer

01. **Vulnerability** Classification and Severity

Description

To enhance navigability, the document is organized in descending order of severity for easy reference. Issues are categorized as  **Fixed**,  **Pending Fix**, or  **Won't Fix**, indicating their current status.  **Won't Fix** denotes that the team is aware of the issue but has chosen not to resolve it. Issues labeled as  **Pending Fix** state that the bug is yet to be resolved. Additionally, each issue's severity is assessed based on the risk of exploitation or the potential for other unexpected or unsafe behavior.

- **Critical**

The issue affects the contract in such a way that funds may be lost, allocated incorrectly, or otherwise result in a significant loss.

- **Medium**

The issue affects the ability of the contract to operate in a way that doesn't significantly hinder its behavior.

- **Informational**

The issue does not affect the contract's operational capability but is considered good practice to address.

- **High**

High-severity vulnerabilities pose a significant risk to both the Smart Contract and the organization. They can lead to user fund losses, may have conditional requirements, and are challenging to exploit.

- **Low**

The issue has minimal impact on the contract's ability to operate.

- **Gas**

This category deals with optimizing code and refactoring to conserve gas.

02. Executive Summary



InfinityName

Github Project

<https://github.com/infinitynamecom/InfinityName>

Language

Solidity

Audit Methodology

Static Scanning

Commit Hash

-

Website

-

Publishers/Owner Name

-

Organization

-

Contact Email

-



Security Score is GREAT

The SolidityScan score is calculated based on lines of code and weights assigned to each issue depending on the severity and confidence. To improve your score, view the detailed result and leverage the remediation solutions provided.

This report has been prepared for InfinityName using SolidityScan to scan and discover vulnerabilities and safe coding practices in their smart contract including the libraries used by the contract that are not officially recognized. The SolidityScan tool runs a comprehensive static analysis on the Solidity code and finds vulnerabilities ranging from minor gas optimizations to major vulnerabilities leading to the loss of funds. The coverage scope pays attention to all the informational and critical vulnerabilities with over 700+ modules. The scanning and auditing process covers the following areas:

Various common and uncommon attack vectors will be investigated to ensure that the smart contracts are secure from malicious actors. The scanner modules find and flag issues related to Gas optimizations that help in reducing the overall Gas cost. It scans and evaluates the codebase against industry best practices and standards to ensure compliance. It makes sure that the officially recognized libraries used in the code are secure and up to date.

The SolidityScan Team recommends running regular audit scans to identify any vulnerabilities that are introduced after InfinityName introduces new features or refactors the code.

03. Findings Summary



InfinityName

[View on Github](#)



Security Score

91.63/100



Scan duration

340 secs



Lines of code

592



0

Crit

0

High

0

Med

15

Low

150

Info

65


Gas




This audit report has not been verified by the SolidityScan team. To learn more about our published reports. [click here](#)

ACTION TAKEN


0

 Fixed


11






 False Positive

0


 Won't Fix

235

















 Pending Fix

| S. No. | Severity | Bug Type | Instances | Detection Method | Status |
|--------|---------------------|---------------------------------------------|-----------|------------------|-----------------------------------------------------------------------------------------------------|
| C001 | <div>Critical</div> | CONTROLLED LOW-LEVEL CALL | 4 | Automated |  False Positive |
| H001 | <div>High</div> | REENTRANCY | 1 | Automated |  False Positive |
| H002 | <div>High</div> | WITHDRAWAL QUEUE ORDERING BUGS | 1 | SolidityScan AI |  False Positive |
| M001 | <div>Medium</div> | PERMIT2 MISUSE WRONG DOMAIN SEPARATOR | 1 | SolidityScan AI |  False Positive |
| M002 | <div>Medium</div> | ACCOUNT EXISTENCE CHECK FOR LOW LEVEL CALLS | 1 | Automated |  False Positive |

| S. No. | Severity | Bug Type | Instances | Detection Method | Status |
|--------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------|-------------------------|
| M003 | ● Medium | SUPPORTSINTERFACE() CALLS MAY REVERT | 1 | Automated | ✕ <i>False Positive</i> |
| M004 | ● Medium | NFT APPROVAL MISCONFIGURATION | 1 | Automated | ✕ <i>False Positive</i> |
| M005 | ● Medium | UNPROTECTED ETHER WITHDRAWAL | 1 | SolidityScan AI | ✕ <i>False Positive</i> |
| M006 | ● Medium | UNVETTED REFERRER ALLOWS UNIVERSAL DISCOUNT AND REFERRAL SIPHONING | 1 | SolidityScan AI | ✕ <i>False Positive</i> |
| L001 | ● Low | ERC777 CALLBACK REENTRANCY | 1 | SolidityScan AI | ⚠ <i>Pending Fix</i> |
| L002 | ● Low | GETPENDINGWITHDRAWAL HIDES BALANCES FOR NON-CURRENT FEERECIPIENT | 1 | SolidityScan AI | ⚠ <i>Pending Fix</i> |
| L003 | ● Low | RESCUE TOKEN FUNCTION UNSAFE | 1 | SolidityScan AI | ⚠ <i>Pending Fix</i> |
| L004 | ● Low | EVENT BASED REENTRANCY | 1 | Automated | ⚠ <i>Pending Fix</i> |
| L005 | ● Low | USE OF FLOATING PRAGMA | 2 | Automated | ⚠ <i>Pending Fix</i> |
| L006 | ● Low | MISSING EVENTS | 4 | Automated | ⚠ <i>Pending Fix</i> |
| L007 | ● Low | NONREENTRANT MODIFIER PLACEMENT | 2 | Automated | ⚠ <i>Pending Fix</i> |
| L008 | ● Low | OUTDATED COMPILER VERSION | 2 | Automated | ⚠ <i>Pending Fix</i> |
| L009 | ● Low | USE OWNABLE2STEP | 1 | Automated | ⚠ <i>Pending Fix</i> |
| I001 | ● Informational | HARD-CODED ADDRESS DETECTED | 1 | Automated | ⚠ <i>Pending Fix</i> |
| I002 | ● Informational | AVOID ARITHMETIC DIRECTLY WITHIN ARRAY INDICES | 1 | Automated | ⚠ <i>Pending Fix</i> |
| I003 | ● Informational | CONTRACT CALLS DISABLEINITIALIZERS IN IT'S CONSTRUCTOR BUT ALSO CONTAINS A INITIALIZATION FUNCTION WHICH UTILIZES THE INITIALIZER MODIFIER | 1 | Automated | ⚠ <i>Pending Fix</i> |

| S. No. | Severity | Bug Type | Instances | Detection Method | Status |
|--------|-----------------|---------------------------------------------------------------|-----------|------------------|----------------------------------------------------------------------------------------------------------|
| I004 | ● Informational | CONTRACT NAME SHOULD USE PASCALCASE | 1 | Automated |  <i>Pending Fix</i> |
| I005 | ● Informational | MISSING @AUTHOR IN NATSPEC COMMENTS FOR CONTRACT DECLARATION | 2 | Automated |  <i>Pending Fix</i> |
| I006 | ● Informational | MISSING @DEV IN NATSPEC COMMENTS FOR CONTRACT DECLARATION | 2 | Automated |  <i>Pending Fix</i> |
| I007 | ● Informational | MISSING @DEV IN NATSPEC COMMENTS FOR FUNCTIONS | 3 | Automated |  <i>Pending Fix</i> |
| I008 | ● Informational | MISSING INDEXED KEYWORDS IN EVENTS | 2 | Automated |  <i>Pending Fix</i> |
| I009 | ● Informational | MISSING @INHERITDOC ON OVERRIDE FUNCTIONS | 33 | Automated |  <i>Pending Fix</i> |
| I010 | ● Informational | MISSING NATSPEC COMMENTS IN SCOPE BLOCKS | 26 | Automated |  <i>Pending Fix</i> |
| I011 | ● Informational | MISSING NATSPEC DESCRIPTIONS FOR PUBLIC VARIABLE DECLARATIONS | 12 | Automated |  <i>Pending Fix</i> |
| I012 | ● Informational | MISSING @NOTICE IN NATSPEC COMMENTS FOR CONSTRUCTORS | 1 | Automated |  <i>Pending Fix</i> |
| I013 | ● Informational | MISSING @NOTICE IN NATSPEC COMMENTS FOR FUNCTIONS | 36 | Automated |  <i>Pending Fix</i> |
| I014 | ● Informational | MISSING PAYABLE IN CALL FUNCTION | 3 | Automated |  <i>Pending Fix</i> |
| I015 | ● Informational | MISSING UNDERSCORE IN NAMING VARIABLES | 8 | Automated |  <i>Pending Fix</i> |
| I016 | ● Informational | NAME MAPPING PARAMETERS | 7 | Automated |  <i>Pending Fix</i> |

| S. No. | Severity | Bug Type | Instances | Detection Method | Status |
|--------|-----------------|-------------------------------------------------------------------------------------------|-----------|------------------|-----------------------|
| I017 | ● Informational | RETURN INSIDE LOOP | 1 | Automated | ⚠️ <i>Pending Fix</i> |
| I018 | ● Informational | REVERT STATEMENTS WITHIN EXTERNAL AND PUBLIC FUNCTIONS CAN BE USED TO PERFORM DOS ATTACKS | 11 | Automated | ⚠️ <i>Pending Fix</i> |
| I019 | ● Informational | UNNAMED FUNCTION PARAMETERS | 1 | Automated | ⚠️ <i>Pending Fix</i> |
| G001 | ● Gas | ABI ENCODE IS LESS EFFICIENT THAN ABI ENCODEPACKED | 1 | Automated | ⚠️ <i>Pending Fix</i> |
| G002 | ● Gas | ARRAY LENGTH CACHING | 1 | Automated | ⚠️ <i>Pending Fix</i> |
| G003 | ● Gas | AVOID RE-STORING VALUES | 3 | Automated | ⚠️ <i>Pending Fix</i> |
| G004 | ● Gas | AVOID ZERO-TO-ONE STORAGE WRITES | 4 | Automated | ⚠️ <i>Pending Fix</i> |
| G005 | ● Gas | CHEAPER CONDITIONAL OPERATORS | 5 | Automated | ⚠️ <i>Pending Fix</i> |
| G006 | ● Gas | CHEAPER INEQUALITIES IN IF() | 6 | Automated | ⚠️ <i>Pending Fix</i> |
| G007 | ● Gas | DEFAULT INT VALUES ARE MANUALLY RESET | 4 | Automated | ⚠️ <i>Pending Fix</i> |
| G008 | ● Gas | DEFINE CONSTRUCTOR AS PAYABLE | 1 | Automated | ⚠️ <i>Pending Fix</i> |
| G009 | ● Gas | FUNCTIONS CAN BE IN-LINED | 5 | Automated | ⚠️ <i>Pending Fix</i> |
| G010 | ● Gas | REVERTING FUNCTIONS CAN BE PAYABLE | 6 | Automated | ⚠️ <i>Pending Fix</i> |
| G011 | ● Gas | GAS INEFFICIENCY DUE TO MULTIPLE OPERANDS IN SINGLE IF/ELSEIF CONDITION | 6 | Automated | ⚠️ <i>Pending Fix</i> |
| G012 | ● Gas | GAS OPTIMIZATION IN INCREMENTS | 2 | Automated | ⚠️ <i>Pending Fix</i> |
| G013 | ● Gas | HARDCODED GAS IN FUNCTION CALLS | 1 | Automated | ⚠️ <i>Pending Fix</i> |
| G014 | ● Gas | INTERNAL FUNCTIONS NEVER USED | 1 | Automated | ⚠️ <i>Pending Fix</i> |

| S. No. | Severity | Bug Type | Instances | Detection Method | Status |
|--------|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------|-----------|------------------|--------------------------------------------------------------------------------------------------------|
| G015 |  Gas | LONG NUMBER LITERALS | 1 | Automated |  <i>Pending Fix</i> |
| G016 |  Gas | NAMED RETURN OF LOCAL VARIABLE SAVES GAS AS COMPARED TO RETURN STATEMENT | 1 | Automated |  <i>Pending Fix</i> |
| G017 |  Gas | OPTIMIZING ADDRESS ID MAPPING | 3 | Automated |  <i>Pending Fix</i> |
| G018 |  Gas | PUBLIC CONSTANTS CAN BE PRIVATE | 4 | Automated |  <i>Pending Fix</i> |
| G019 |  Gas | STORAGE VARIABLE CACHING IN MEMORY | 9 | Automated |  <i>Pending Fix</i> |
| G020 |  Gas | STORING STORAGE VARIABLES IN MEMORY | 2 | Automated |  <i>Pending Fix</i> |
| G021 |  Gas | UNNECESSARY CHECKED ARITHMETIC IN LOOP | 2 | Automated |  <i>Pending Fix</i> |
| G022 |  Gas | USE SELFBALANCE() INSTEAD OF ADDRESS(THIS).BALANCE | 1 | Automated |  <i>Pending Fix</i> |

04. Vulnerability Details

Issue Type

CONTROLLED LOW-LEVEL CALL

| | | | |
|--------|--------------------------------|------------------|-----------|
| S. No. | Severity | Detection Method | Instances |
| C001 | <div><div></div>Critical</div> | Automated | 4 |

| Bug ID | File Location | Line No. | Action Taken |
|---------------|---------------|----------|--------------------------------------|
| SSP_109224_14 | -- | -- | <div><div></div>False Positive</div> |
| SSP_109224_15 | -- | -- | <div><div></div>False Positive</div> |
| SSP_109224_16 | -- | -- | <div><div></div>False Positive</div> |
| SSP_109224_16 | -- | -- | <div><div></div>False Positive</div> |

Upgrade your Plan to view the full report

4 Critical Issues Found

Please upgrade your plan to view all the issues in your report.

Upgrade

Issue Type

REENTRANCY

| S. No. | Severity | Detection Method | Instances |
|--------|---------------------|------------------|-----------|
| H001 | ● High | Automated | 1 |

| Bug ID | File Location | Line No. | Action Taken |
|----------------|---------------|----------|-----------------------------------------------------------------------------------------------------------|
| SSP_109224_194 | -- | -- |  <i>False Positive</i> |

Upgrade your Plan to view the full report

1 High Issues Found

Please upgrade your plan to view all the issues in your report.

 **Upgrade**

Issue Type

PERMIT2 MISUSE WRONG DOMAIN SEPARATOR

| S. No. | Severity | Detection Method | Instances |
|--------|----------|-------------------|-----------|
| M001 | ● Medium | ✨ SolidityScan AI | 1 |

| Bug ID | File Location | Line No. | Action Taken |
|----------------|---------------|----------|--------------------------|
| SSP_109224_241 | -- | -- | ✓✗ <i>False Positive</i> |

Upgrade your Plan to view the full report

1 Medium Issues Found

Please upgrade your plan to view all the issues in your report.

 **Upgrade**

Issue Type

ERC777 CALLBACK REENTRANCY

| S. No. | Severity | Detection Method | Instances |
|--------|---------------------------|---------------------------------------|-----------|
| L001 | <div><div></div>Low</div> | <div><div></div>SolidityScan AI</div> | 1 |

| Bug ID | File Location | Line No. | Action Taken |
|----------------|---------------|----------|-----------------------------------|
| SSP_109224_245 | -- | -- | <div><div></div>Pending Fix</div> |

Upgrade your Plan to view the full report

1 Low Issues Found

Please upgrade your plan to view all the issues in your report.

Upgrade

Issue Type

HARD-CODED ADDRESS DETECTED

| S. No. | Severity | Detection Method | Instances |
|--------|-----------------|------------------|-----------|
| I001 | ● Informational | Automated | 1 |

| Bug ID | File Location | Line No. | Action Taken |
|----------------|---------------|----------|-------------------------------------------------------------------------------------------------|
| SSP_109224_199 | -- | -- |  Pending Fix |

Upgrade your Plan to view the full report

1 Informational Issues Found

Please upgrade your plan to view all the issues in your report.

 Upgrade

Issue Type

ABI ENCODE IS LESS EFFICIENT THAN ABI ENCODEPACKED

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G001 | ● Gas | Automated | 1 |



Description

The contract is using `abi.encode()` in the function. In `abi.encode()`, all elementary types are padded to 32 bytes and dynamic arrays include their length, whereas `abi.encodePacked()` will only use the minimal required memory to encode the data.

| Bug ID | File Location | Line No. | Action Taken |
|----------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_213 | InfinityNameUpgr...deable.sol ↗ | L560 - L560 | ⚠ Pending Fix |

Issue Type

ARRAY LENGTH CACHING

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G002 | ● Gas | Automated | 1 |



Description

During each iteration of the loop, reading the length of the array uses more gas than is necessary. In the most favorable scenario, in which the length is read from a memory variable, storing the array length in the stack can save about 3 gas per iteration. In the least favorable scenario, in which external calls are made during each iteration, the amount of gas wasted can be significant.

| Bug ID | File Location | Line No. | Action Taken |
|----------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_178 | InfinityNameUpgr...deable.sol ↗ | L282 - L284 | ⚠ <i>Pending Fix</i> |

Issue Type

AVOID RE-STORING VALUES

| S. No. | Severity | Detection Method | Instances |
|--------|----------|------------------|-----------|
| G003 | ● Gas | Automated | 3 |



Description

The function is found to be allowing re-storing the value in the contract's state variable even when the old value is equal to the new value. This practice results in unnecessary gas consumption due to the `Gsreset` operation (2900 gas), which could be avoided. If the old value and the new value are the same, not updating the storage would avoid this cost and could instead incur a `Gcoldload` (2100 gas) or a `Gwarmaccess` (100 gas), potentially saving gas.

| Bug ID | File Location | Line No. | Action Taken |
|---------------|-------------------------------------------------|-------------|-----------------------|
| SSP_109224_11 | InfinityNameUpgr...deable.sol ↗ | L206 - L212 | ⚠️ <i>Pending Fix</i> |
| SSP_109224_12 | InfinityNameUpgr...deable.sol ↗ | L471 - L475 | ⚠️ <i>Pending Fix</i> |
| SSP_109224_13 | InfinityNameUpgr...deable.sol ↗ | L566 - L571 | ⚠️ <i>Pending Fix</i> |

Issue Type

AVOID ZERO-TO-ONE STORAGE WRITES

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G004 | ● Gas | Automated | 4 |



Description

Writing a storage variable from zero to a non-zero value costs 22,100 gas (20,000 for the write and 2,100 for cold access), making it one of the most expensive operations. This is why patterns like OpenZeppelin's `ReentrancyGuard` use `1` and `2` instead of `0` and `1`—to avoid the high cost of zero-to-non-zero writes. Non-zero to non-zero updates cost only 5,000 gas.

| Bug ID | File Location | Line No. | Action Taken |
|----------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_225 | InfinityNameUpgr...deable.sol ↗ | L111 - L111 | ⚠ <i>Pending Fix</i> |
| SSP_109224_226 | InfinityNameUpgr...deable.sol ↗ | L112 - L112 | ⚠ <i>Pending Fix</i> |
| SSP_109224_227 | InfinityNameUpgr...deable.sol ↗ | L371 - L371 | ⚠ <i>Pending Fix</i> |
| SSP_109224_228 | InfinityNameUpgr...deable.sol ↗ | L473 - L473 | ⚠ <i>Pending Fix</i> |

Issue Type

CHEAPER CONDITIONAL OPERATORS

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G005 | ● Gas | Automated | 5 |



Description

During compilation, `x != 0` is cheaper than `x > 0` for unsigned integers in solidity inside conditional statements.

| Bug ID | File Location | Line No. | Action Taken |
|---------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_18 | InfinityNameUpgr...deable.sol ↗ | L388 - L388 | ⚠ <i>Pending Fix</i> |
| SSP_109224_19 | InfinityNameUpgr...deable.sol ↗ | L422 - L422 | ⚠ <i>Pending Fix</i> |
| SSP_109224_20 | InfinityNameUpgr...deable.sol ↗ | L497 - L497 | ⚠ <i>Pending Fix</i> |
| SSP_109224_21 | InfinityNameUpgr...deable.sol ↗ | L175 - L175 | ⚠ <i>Pending Fix</i> |
| SSP_109224_22 | InfinityNameUpgr...deable.sol ↗ | L546 - L546 | ⚠ <i>Pending Fix</i> |

Issue Type

CHEAPER INEQUALITIES IN IF()

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G006 | ● Gas | Automated | 6 |



Description

The contract was found to be doing comparisons using inequalities inside the if statement.

When inside the `if` statements, non-strict inequalities (`>=`, `<=`) are usually cheaper than the strict equalities (`>`, `<`).

| Bug ID | File Location | Line No. | Action Taken |
|----------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_206 | InfinityNameUpgr...deable.sol ↗ | L142 - L142 | ⚠ <i>Pending Fix</i> |
| SSP_109224_207 | InfinityNameUpgr...deable.sol ↗ | L175 - L175 | ⚠ <i>Pending Fix</i> |
| SSP_109224_208 | InfinityNameUpgr...deable.sol ↗ | L194 - L194 | ⚠ <i>Pending Fix</i> |
| SSP_109224_209 | InfinityNameUpgr...deable.sol ↗ | L248 - L248 | ⚠ <i>Pending Fix</i> |
| SSP_109224_210 | InfinityNameUpgr...deable.sol ↗ | L355 - L355 | ⚠ <i>Pending Fix</i> |
| SSP_109224_211 | InfinityNameUpgr...deable.sol ↗ | L546 - L546 | ⚠ <i>Pending Fix</i> |

Issue Type

DEFAULT INT VALUES ARE MANUALLY RESET

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G007 | ● Gas | Automated | 4 |



Description

The contract is found to inefficiently reset integer variables to their default value of zero using manual assignment. In Solidity, manually setting a variable to its default value does not free up storage space, leading to unnecessary gas consumption. Instead, using the `.delete` keyword can achieve the same result while also freeing up storage space on the Ethereum blockchain, resulting in gas cost savings.

| Bug ID | File Location | Line No. | Action Taken |
|---------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_63 | InfinityNameUpgr...deable.sol ↗ | L112 - L112 | ⚠ <i>Pending Fix</i> |
| SSP_109224_64 | InfinityNameUpgr...deable.sol ↗ | L330 - L330 | ⚠ <i>Pending Fix</i> |
| SSP_109224_65 | InfinityNameUpgr...deable.sol ↗ | L390 - L390 | ⚠ <i>Pending Fix</i> |
| SSP_109224_66 | InfinityNameUpgr...deable.sol ↗ | L424 - L424 | ⚠ <i>Pending Fix</i> |

Issue Type

DEFINE CONSTRUCTOR AS PAYABLE

| S. No. | Severity | Detection Method | Instances |
|--------|----------|------------------|-----------|
| G008 | ● Gas | Automated | 1 |



Description

Developers can save around 10 opcodes and some gas if the constructors are defined as payable. However, it should be noted that it comes with risks because payable constructors can accept ETH during deployment.

| Bug ID | File Location | Line No. | Action Taken |
|----------------|-------------------------------------------------|-----------|----------------------|
| SSP_109224_205 | InfinityNameUpgr...deable.sol ↗ | L96 - L98 | ⚠ Pending Fix |

Issue Type

FUNCTIONS CAN BE IN-LINED

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G009 | ● Gas | Automated | 5 |



Description

The internal function was called only once throughout the contract. Internal functions cost more gas due to additional JUMP instructions and stack operations.

| Bug ID | File Location | Line No. | Action Taken |
|----------------|---------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_231 | InfinityNameSVG.sol ↗ | L40 - L58 | ⚠ <i>Pending Fix</i> |
| SSP_109224_232 | InfinityNameSVG.sol ↗ | L63 - L79 | ⚠ <i>Pending Fix</i> |
| SSP_109224_233 | InfinityNameSVG.sol ↗ | L84 - L94 | ⚠ <i>Pending Fix</i> |
| SSP_109224_234 | InfinityNameSVG.sol ↗ | L99 - L109 | ⚠ <i>Pending Fix</i> |
| SSP_109224_235 | InfinityNameSVG.sol ↗ | L114 - L130 | ⚠ <i>Pending Fix</i> |

Issue Type

REVERTING FUNCTIONS CAN BE PAYABLE

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G010 | ● Gas | Automated | 6 |



Description

If a function modifier such as `onlyOwner` is used, the function will revert if a normal user tries to pay the function. Marking the function as payable will lower the gas cost for legitimate callers because the compiler will not include checks for whether a payment was provided.

| Bug ID | File Location | Line No. | Action Taken |
|----------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_214 | InfinityNameUpgr...deable.sol ↗ | L471 - L475 | ⚠ <i>Pending Fix</i> |
| SSP_109224_215 | InfinityNameUpgr...deable.sol ↗ | L481 - L483 | ⚠ <i>Pending Fix</i> |
| SSP_109224_216 | InfinityNameUpgr...deable.sol ↗ | L488 - L490 | ⚠ <i>Pending Fix</i> |
| SSP_109224_217 | InfinityNameUpgr...deable.sol ↗ | L495 - L503 | ⚠ <i>Pending Fix</i> |
| SSP_109224_218 | InfinityNameUpgr...deable.sol ↗ | L508 - L513 | ⚠ <i>Pending Fix</i> |
| SSP_109224_219 | InfinityNameUpgr...deable.sol ↗ | L566 - L571 | ⚠ <i>Pending Fix</i> |

Issue Type

GAS INEFFICIENCY DUE TO MULTIPLE OPERANDS IN SINGLE IF/ELSEIF CONDITION

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G011 | ● Gas | Automated | 6 |



Description

The contract is found to use multiple operands within a single `if` or `else if` statement, which can lead to unnecessary gas consumption due to the way the EVM evaluates compound boolean expressions. Each operand in a compound condition is evaluated even if the first condition fails, unless short-circuiting occurs, and the combined logic can result in more complex bytecode and higher gas usage compared to using nested `if` statements. This inefficiency is particularly relevant in functions that are called frequently or within loops.

| Bug ID | File Location | Line No. | Action Taken |
|---------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_41 | InfinityNameUpgr...deable.sol ↗ | L175 - L192 | ⚠ <i>Pending Fix</i> |
| SSP_109224_42 | InfinityNameUpgr...deable.sol ↗ | L248 - L250 | ⚠ <i>Pending Fix</i> |
| SSP_109224_43 | InfinityNameUpgr...deable.sol ↗ | L264 - L266 | ⚠ <i>Pending Fix</i> |
| SSP_109224_44 | InfinityNameUpgr...deable.sol ↗ | L329 - L332 | ⚠ <i>Pending Fix</i> |
| SSP_109224_45 | InfinityNameUpgr...deable.sol ↗ | L355 - L365 | ⚠ <i>Pending Fix</i> |
| SSP_109224_46 | InfinityNameUpgr...deable.sol ↗ | L445 - L448 | ⚠ <i>Pending Fix</i> |

Issue Type

GAS OPTIMIZATION IN INCREMENTS

| S. No. | Severity | Detection Method | Instances |
|--------|----------|------------------|-----------|
| G012 | ● Gas | Automated | 2 |



Description

`++i` costs less gas compared to `i++` or `i += 1` for unsigned integers. In `i++`, the compiler has to create a temporary variable to store the initial value. This is not the case with `++i` in which the value is directly incremented and returned, thus, making it a cheaper alternative.

| Bug ID | File Location | Line No. | Action Taken |
|---------------|-------------------------------------------------|-------------|----------------------|
| SSP_109224_23 | InfinityNameUpgr...deable.sol ↗ | L252 - L252 | ⚠ <i>Pending Fix</i> |
| SSP_109224_24 | InfinityNameUpgr...deable.sol ↗ | L282 - L282 | ⚠ <i>Pending Fix</i> |

Issue Type

HARDCODED GAS IN FUNCTION CALLS

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G013 | ● Gas | Automated | 1 |



Description

The function makes a call with a fixed amount of gas. If the receiver is a contract this may be insufficient to process the receive() function. As a result the user would be unable to receive funds from this function or the call might fail.

| Bug ID | File Location | Line No. | Action Taken |
|----------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_212 | InfinityNameUpgr...deable.sol ↗ | L177 - L177 | ⚠ Pending Fix |

Issue Type

INTERNAL FUNCTIONS NEVER USED

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G014 | ● Gas | Automated | 1 |



Description

The contract declared internal functions but was not using them in any of the functions or contracts. Since internal functions can only be called from inside the contracts, it makes no sense to have them if they are not used. This uses up gas and causes issues for auditors when understanding the contract logic.

| Bug ID | File Location | Line No. | Action Taken |
|----------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_204 | InfinityNameUpgr...deable.sol ↗ | L122 - L124 | ⚠ Pending Fix |

Issue Type

LONG NUMBER LITERALS

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G015 | ● Gas | Automated | 1 |



Description

Solidity supports multiple rational and integer literals, including decimal fractions and scientific notations. The use of very large numbers with too many digits was detected in the code that could have been optimized using a different notation also supported by Solidity.

| Bug ID | File Location | Line No. | Action Taken |
|----------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_174 | InfinityNameUpgr...deable.sol ↗ | L111 - L111 | ⚠ Pending Fix |

Issue Type

NAMED RETURN OF LOCAL VARIABLE SAVES GAS AS COMPARED TO RETURN STATEMENT

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G016 | ● Gas | Automated | 1 |



Description

The function having a return type is found to be declaring a local variable for returning, which causes extra gas consumption. This inefficiency arises because creating and manipulating local variables requires additional computational steps and memory allocation.

| Bug ID | File Location | Line No. | Action Taken |
|---------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_53 | InfinityNameUpgr...deable.sol ↗ | L276 - L287 | ⚠ <i>Pending Fix</i> |

Issue Type

OPTIMIZING ADDRESS ID MAPPING

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G017 | ● Gas | Automated | 3 |



Description

Combining multiple address/ID mappings into a single mapping using a struct enhances storage efficiency, simplifies code, and reduces gas costs, resulting in a more streamlined and cost-effective smart contract design. It saves storage slot for the mapping and depending on the circumstances and sizes of types, it can avoid a Gsset (2 0000 gas) per mapping combined. Reads and subsequent writes can also be cheaper when a function requires both values and they fit in the same storage slot.

| Bug ID | File Location | Line No. | Action Taken |
|----------------|-------------------------------------------------|-----------|----------------------------------------------------------|
| SSP_109224_236 | InfinityNameUpgr...deable.sol ↗ | L38 - L38 | ⚠ <i>Pending Fix</i> |
| SSP_109224_237 | InfinityNameUpgr...deable.sol ↗ | L41 - L41 | ⚠ <i>Pending Fix</i> |
| SSP_109224_238 | InfinityNameUpgr...deable.sol ↗ | L51 - L51 | ⚠ <i>Pending Fix</i> |

Issue Type

PUBLIC CONSTANTS CAN BE PRIVATE

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G018 | ● Gas | Automated | 4 |



Description

Public constant variables cost more gas because the EVM automatically creates getter functions for them and adds entries to the method ID table. The values can be read from the source code instead.

| Bug ID | File Location | Line No. | Action Taken |
|---------------|-------------------------------------------------|-----------|----------------------------------------------------------|
| SSP_109224_47 | InfinityNameUpgr...deable.sol ↗ | L26 - L26 | ⚠ <i>Pending Fix</i> |
| SSP_109224_48 | InfinityNameUpgr...deable.sol ↗ | L27 - L27 | ⚠ <i>Pending Fix</i> |
| SSP_109224_49 | InfinityNameUpgr...deable.sol ↗ | L28 - L28 | ⚠ <i>Pending Fix</i> |
| SSP_109224_50 | InfinityNameUpgr...deable.sol ↗ | L29 - L29 | ⚠ <i>Pending Fix</i> |

Issue Type

STORAGE VARIABLE CACHING IN MEMORY

| S. No. | Severity | Detection Method | Instances |
|--------|----------|------------------|-----------|
| G019 | ● Gas | Automated | 9 |



Description

The contract is using the state variable multiple times in the function.

SLOADs are expensive (100 gas after the 1st one) compared to MLOAD / MSTORE (3 gas each).

| Bug ID | File Location | Line No. | Action Taken |
|---------------|-------------------------------------------------|-------------|---------------|
| SSP_109224_58 | InfinityNameUpgr...deable.sol ↗ | L128 - L198 | ⚠ Pending Fix |
| SSP_109224_58 | InfinityNameUpgr...deable.sol ↗ | L128 - L198 | ⚠ Pending Fix |
| SSP_109224_58 | InfinityNameUpgr...deable.sol ↗ | L128 - L198 | ⚠ Pending Fix |
| SSP_109224_58 | InfinityNameUpgr...deable.sol ↗ | L128 - L198 | ⚠ Pending Fix |
| SSP_109224_59 | InfinityNameUpgr...deable.sol ↗ | L321 - L345 | ⚠ Pending Fix |
| SSP_109224_59 | InfinityNameUpgr...deable.sol ↗ | L321 - L345 | ⚠ Pending Fix |
| SSP_109224_60 | InfinityNameUpgr...deable.sol ↗ | L350 - L377 | ⚠ Pending Fix |
| SSP_109224_61 | InfinityNameUpgr...deable.sol ↗ | L444 - L450 | ⚠ Pending Fix |
| SSP_109224_62 | InfinityNameUpgr...deable.sol ↗ | L545 - L555 | ⚠ Pending Fix |

Issue Type

STORING STORAGE VARIABLES IN MEMORY

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G020 | ● Gas | Automated | 2 |



Description

Whenever a struct, array, or a mapping is stored and copied to a memory variable, each member is read from the storage and then copied. This becomes expensive. This could easily be optimized by using the storage keyword which just stores a pointer to the storage instead, making the whole process a lot cheaper.

| Bug ID | File Location | Line No. | Action Taken |
|----------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_200 | InfinityNameUpgr...deable.sol ↗ | L279 - L279 | ⚠ Pending Fix |
| SSP_109224_201 | InfinityNameUpgr...deable.sol ↗ | L306 - L306 | ⚠ Pending Fix |

Issue Type

UNNECESSARY CHECKED ARITHMETIC IN LOOP

| S. No. | Severity | Detection Method | Instances |
|--------|----------------------------------------|------------------|-----------|
| G021 | ● Gas | Automated | 2 |



Description

Increments inside a loop could never overflow due to the fact that the transaction will run out of gas before the variable reaches its limits. Therefore, it makes no sense to have checked arithmetic in such a place.

| Bug ID | File Location | Line No. | Action Taken |
|---------------|-------------------------------------------------|-------------|----------------------------------------------------------|
| SSP_109224_51 | InfinityNameUpgr...deable.sol ↗ | L252 - L252 | ⚠ <i>Pending Fix</i> |
| SSP_109224_52 | InfinityNameUpgr...deable.sol ↗ | L282 - L282 | ⚠ <i>Pending Fix</i> |

Issue Type

USE SELFBALANCE() INSTEAD OF ADDRESS(THIS).BALANCE

| S. No. | Severity | Detection Method | Instances |
|--------|----------|------------------|-----------|
| G022 | ● Gas | Automated | 1 |



Description

In Solidity, efficient use of gas is paramount to ensure cost-effective execution on the Ethereum blockchain. Gas can be optimized when obtaining contract balance by using `selfbalance()` rather than `address(this).balance` because it bypasses gas costs and refunds, which are not required for obtaining the contract's balance.

| Bug ID | File Location | Line No. | Action Taken |
|----------------|-------------------------------------------------|-------------|-----------------------|
| SSP_109224_202 | InfinityNameUpgr...deable.sol ↗ | L496 - L496 | ⚠️ <i>Pending Fix</i> |

05. Scan History

● Critical ● High ● Medium ● Low ● Informational ● Gas

| No | Date | Security Score | Scan Overview |
|----|------|----------------|---------------|
|----|------|----------------|---------------|

| | | | |
|----|------------|--------------|---------------------------------------|
| 1. | 2025-10-18 | 91.63 | ● 0 ● 0 ● 0 ● 15 ● 150 ● 65 |
|----|------------|--------------|---------------------------------------|

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