



# DeBridge - Contracts v1

## Smart Contract Security Audit

Prepared by: **Halborn**

Date of Engagement: November 15th, 2022 - November 18th, 2022

Visit: [Halborn.com](https://Halborn.com)

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## DOCUMENT REVISION HISTORY

VERSION	MODIFICATION	DATE	AUTHOR
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0.2	Draft Review	11/18/2022	Kubilay Onur Gungor
0.3	Draft Review	11/18/2022	Gabi Urrutia
1.0	Remediation Plan	02/07/2023	Omar Alshaeb
1.1	Remediation Plan Review	02/07/2023	Roberto Reigada
1.2	Remediation Plan Review	02/07/2023	Piotr Cielas
1.3	Remediation Plan Review	02/07/2023	Gabi Urrutia

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# EXECUTIVE OVERVIEW

## 1.1 INTRODUCTION

DeBridge is a cross-chain interoperability and liquidity transfer protocol that allows truly decentralized transfer of assets between various blockchains.

DeBridge engaged Halborn to conduct a security audit on their smart contracts beginning on November 15th, 2022 and ending on November 18th, 2022. The security assessment was scoped to the smart contracts provided to the Halborn team.

## 1.2 AUDIT SUMMARY

The team at Halborn was provided one week for the engagement and assigned a full-time security engineer to audit the security of the smart contract. The security engineer is a blockchain and smart-contract security expert with advanced penetration testing, smart-contract hacking, and deep knowledge of multiple blockchain protocols.

The purpose of this audit is to:

- Ensure that smart contract functions operate as intended
- Identify potential security issues with the smart contracts

In summary, Halborn identified two informational findings that were acknowledged by the DeBridge team.

## 1.3 TEST APPROACH & METHODOLOGY

Halborn performed a combination of manual and automated security testing to balance efficiency, timeliness, practicality, and accuracy in regard to the scope of this audit. While manual testing is recommended to uncover flaws in logic, process, and implementation; automated testing techniques

help enhance coverage of the bridge code and can quickly identify items that do not follow security best practices. The following phases and associated tools were used throughout the term of the audit:

- Research into architecture and purpose
- Smart contract manual code review and walkthrough
- Graphing out functionality and contract logic/connectivity/functions ([solgraph](#))
- Manual assessment of use and safety for the critical Solidity variables and functions in scope to identify any arithmetic related vulnerability classes
- Manual testing by custom scripts
- Scanning of solidity files for vulnerabilities, security hotspots or bugs. ([MythX](#))
- Static Analysis of security for scoped contract, and imported functions. ([Slither](#))
- Testnet deployment ([Brownie](#), [Remix IDE](#))

#### RISK METHODOLOGY:

Vulnerabilities or issues observed by Halborn are ranked based on the risk assessment methodology by measuring the **LIKELIHOOD** of a security incident and the **IMPACT** should an incident occur. This framework works for communicating the characteristics and impacts of technology vulnerabilities. The quantitative model ensures repeatable and accurate measurement while enabling users to see the underlying vulnerability characteristics that were used to generate the Risk scores. For every vulnerability, a risk level will be calculated on a scale of 5 to 1 with 5 being the highest likelihood or impact.

#### RISK SCALE - LIKELIHOOD

- 5 - Almost certain an incident will occur.
- 4 - High probability of an incident occurring.
- 3 - Potential of a security incident in the long term.
- 2 - Low probability of an incident occurring.
- 1 - Very unlikely issue will cause an incident.

## RISK SCALE – IMPACT

5 – May cause devastating and unrecoverable impact or loss.

4 – May cause a significant level of impact or loss.

3 – May cause a partial impact or loss to many.

2 – May cause temporary impact or loss.

1 – May cause minimal or un-noticeable impact.

The risk level is then calculated using a sum of these two values, creating a value of 10 to 1 with 10 being the highest level of security risk.

CRITICAL	HIGH	MEDIUM	LOW	INFORMATIONAL
----------	------	--------	-----	---------------

10 – CRITICAL

9 – 8 – HIGH

7 – 6 – MEDIUM

5 – 4 – LOW

3 – 1 – VERY LOW AND INFORMATIONAL

## 1.4 SCOPE

### IN-SCOPE:

The security assessment was scoped to the following smart contracts:

- contracts/libraries/Flags.sol
- contracts/libraries/SignatureUtil.sol
- contracts/periphery/CallProxy.sol
- contracts/periphery/DeBridgeToken.sol
- contracts/periphery/DeBridgeTokenPaused.sol
- contracts/periphery/DeBridgeTokenProxy.sol
- contracts/periphery/FeeProxy.sol
- contracts/periphery/FeesCalculator.sol
- contracts/periphery/SimpleFeeProxy.sol
- contracts/periphery/UpgradeableBeacon.sol
- contracts/transfers/DeBridgeGate.sol
- contracts/transfers/DeBridgeTokenDeployer.sol
- contracts/transfers/OraclesManager.sol
- contracts/transfers/SignatureVerifier.sol
- contracts/transfers/WethGate.sol

Commit ID: a542b0bba3274aea8a9af7b087b8c9b3c8e0619b

- DeBridgeGate old deployed implementation address:

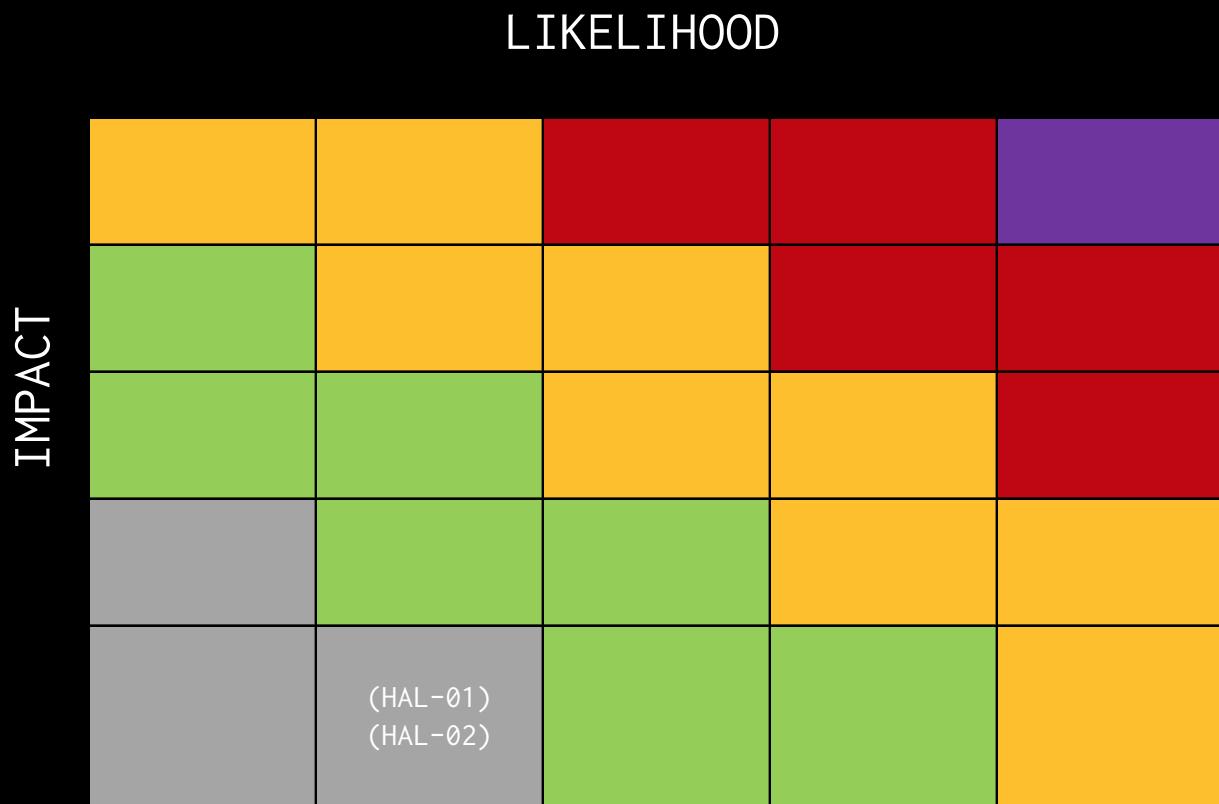
0x24455aa55DED7728783c9474bE8eA2f5C935f8EB

- DeBridgeGate new deployed implementation address:

0x797161BCC625155D2302251404ccB93c2632658e

## 2. ASSESSMENT SUMMARY & FINDINGS OVERVIEW

CRITICAL	HIGH	MEDIUM	LOW	INFORMATIONAL
0	0	0	0	2



# EXECUTIVE OVERVIEW

SECURITY ANALYSIS	RISK LEVEL	REMEDIATION DATE
HAL01 - USE ++I INSTEAD OF I++ IN LOOPS FOR GAS OPTIMIZATION	Informational	ACKNOWLEDGED
HAL02 - ZERO ADDRESS NOT CHECKED	Informational	ACKNOWLEDGED



# FINDINGS & TECH DETAILS



### 3.1 (HAL-01) USE `++i` INSTEAD OF `i++` IN LOOPS FOR GAS OPTIMIZATION - INFORMATIONAL

#### Description:

In various code sections, within the loops, the variable `i` is incremented using `i++`. It is known that, in loops, using `++i` costs less gas per iteration than `i++`. This also affects variables incremented inside the loop code block.

#### Code Location:

Listing 1: DeBridgeToken.sol (Line 71)

```
54     function initialize(
55         string memory name_,
56         string memory symbol_,
57         uint8 decimals_,
58         address admin,
59         address[] memory minters
60     ) public initializer {
61     _decimals = decimals_;
62     name_ = string(abi.encodePacked("deBridge ",
63         bytes(name_).length == 0 ? symbol_ : name_));
64     symbol_ = string(abi.encodePacked("de", symbol_));
65
66     __ERC20_init_unchained(name_, symbol_);
67
68     _setupRole(DEFAULT_ADMIN_ROLE, admin);
69     _setupRole(PAUSER_ROLE, admin);
70     uint256 mintersCount = minters.length;
71     for (uint256 i = 0; i < mintersCount; i++) {
72         _setupRole(MINTER_ROLE, minters[i]);
73     }
74
75     uint256 chainId;
76     assembly {
77         chainId := chainid()
```

```

78     }
79     DOMAIN_SEPARATOR = keccak256(
80         abi.encode(
81             keccak256(
82                 "EIP712Domain(string name,string version,uint256
83             chainId,address verifyingContract)"
84             ),
85             keccak256(bytes(name_)),
86             keccak256(bytes("1")),
87             chainId,
88             address(this)
89         )
90     );

```

**Listing 2:** DeBridgeGate.sol (Line 387)

```

381     function updateChainSupport(
382         uint256[] memory _chainIds,
383         ChainSupportInfo[] memory _chainSupportInfo,
384         bool _isChainFrom
385     ) external onlyAdmin {
386         if (_chainIds.length != _chainSupportInfo.length) revert
387             WrongArgument();
388         for (uint256 i = 0; i < _chainIds.length; i++) {
389             if(_isChainFrom){
390                 getChainFromConfig[_chainIds[i]] = _chainSupportInfo[i]
391             }
392             else {
393                 getChainToConfig[_chainIds[i]] = _chainSupportInfo[i];
394             }
395             emit ChainsSupportUpdated(_chainIds[i], _chainSupportInfo[
396             i], _isChainFrom);
395         }
396     }

```

**Listing 3:** DeBridgeGate.sol (Line 421)

```

414     function updateAssetFixedFees(
415         bytes32 _debridgeId,
416         uint256[] memory _supportedChainIds,
417         uint256[] memory _assetFeesInfo

```

```

418 ) external onlyAdmin {
419     if (_supportedChainIds.length != _assetFeesInfo.length) revert
↳ WrongArgument();
420     DebridgeFeeInfo storage debridgeFee = getDebridgeFeeInfo[
↳ _debridgeId];
421     for (uint256 i = 0; i < _supportedChainIds.length; i++) {
422         debridgeFee.getChainFee[_supportedChainIds[i]] =
↳ _assetFeesInfo[i];
423     }
424 }
```

**Listing 4:** DeBridgeGate.sol (Line 538)

```

537     function blockSubmission(bytes32[] memory _submissionIds, bool
↳ isBlocked) external onlyAdmin {
538     for (uint256 i = 0; i < _submissionIds.length; i++) {
539         isBlockedSubmission[_submissionIds[i]] = isBlocked;
540         if (isBlocked) {
541             emit Blocked(_submissionIds[i]);
542         } else {
543             emit Unblocked(_submissionIds[i]);
544         }
545     }
546 }
```

**Listing 5:** DeBridgeTokenDeployer.sol (Line 181)

```

176     function setOverridedTokenInfo (
177         bytes32[] memory _debridgeIds,
178         OverridedTokenInfo[] memory _tokens
179     ) external onlyAdmin {
180         if (_debridgeIds.length != _tokens.length) revert
↳ WrongArgument();
181         for (uint256 i = 0; i < _debridgeIds.length; i++) {
182             overrideTokens[_debridgeIds[i]] = _tokens[i];
183         }
184 }
```

**Listing 6:** SignatureVerifier.sol (Lines 73,77)

```

58     function submit(
59         bytes32 _submissionId,
```

```
60     bytes memory _signatures,
61     uint8 _excessConfirmations
62 ) external override onlyDeBridgeGate {
63     //Need confirmation to confirm submission
64     uint8 needConfirmations = _excessConfirmations >
↳ minConfirmations
65     ? _excessConfirmations
66     : minConfirmations;
67     // Count of required(DSRM) oracles confirmation
68     uint256 currentRequiredOraclesCount;
69     // stack variable to aggregate confirmations and write to
↳ storage once
70     uint8 confirmations;
71     uint256 signaturesCount = _countSignatures(_signatures);
72     address[] memory validators = new address[](signaturesCount);
73     for (uint256 i = 0; i < signaturesCount; i++) {
74         (bytes32 r, bytes32 s, uint8 v) = _signatures.
↳ parseSignature(i * 65);
75         address oracle = ecrecover(_submissionId.getUnsignedMsg(),
↳ v, r, s);
76         if (getOracleInfo[oracle].isValid) {
77             for (uint256 k = 0; k < i; k++) {
78                 if (validators[k] == oracle) revert
↳ DuplicateSignatures();
79             }
80             validators[i] = oracle;
81
82             confirmations += 1;
83             emit Confirmed(_submissionId, oracle);
84             if (getOracleInfo[oracle].required) {
85                 currentRequiredOraclesCount += 1;
86             }
87             if (
88                 confirmations >= needConfirmations &&
89                 currentRequiredOraclesCount >=
↳ requiredOraclesCount
90             ) {
91                 break;
92             }
93         }
94     }
95
96     if (currentRequiredOraclesCount != requiredOraclesCount)
97         revert NotConfirmedByRequiredOracles();
```

```

98
99     if (confirmations >= minConfirmations) {
100         if (currentBlock == uint40(block.number)) {
101             submissionsInBlock += 1;
102         } else {
103             currentBlock = uint40(block.number);
104             submissionsInBlock = 1;
105         }
106         emit SubmissionApproved(_submissionId);
107     }
108
109    if (submissionsInBlock > confirmationThreshold) {
110        if (confirmations < excessConfirmations) revert
111        ↳ NotConfirmedThreshold();
112    }
113    if (confirmations < needConfirmations) revert
114    ↳ SubmissionNotConfirmed();
114 }
```

Listing 7: OraclesManager.sol (Line 89)

```

82     function addOracles(
83         address[] memory _oracles,
84         bool[] memory _required
85     ) external onlyAdmin {
86         if (_oracles.length != _required.length) revert WrongArgument
87         ();
88         if (minConfirmations < (oracleAddresses.length + _oracles.
89         ↳ length) / 2 + 1) revert LowMinConfirmations();
90
91         for (uint256 i = 0; i < _oracles.length; i++) {
92             OracleInfo storage oracleInfo = getOracleInfo[_oracles[i]
93             ↳ ];
94             if (oracleInfo.exist) revert OracleAlreadyExist();
95             oracleAddresses.push(_oracles[i]);
96             if (_required[i]) {
97                 requiredOraclesCount += 1;
98             }
99             oracleInfo.exist = true;
100            oracleInfo.isValid = true;
```

```

101         oracleInfo.required = _required[i];
102
103         emit AddOracle(_oracles[i], _required[i]);
104     }
105 }
```

**Listing 8: OraclesManager.sol (Line 129)**

```

111     function updateOracle(
112         address _oracle,
113         bool _isValid,
114         bool _required
115     ) external onlyAdmin {
116         //If oracle is invalid, it must be not required
117         if (!_isValid && _required) revert WrongArgument();
118
119         OracleInfo storage oracleInfo = getOracleInfo[_oracle];
120         if (!oracleInfo.exist) revert OracleNotFound();
121
122         if (oracleInfo.required && !_required) {
123             requiredOraclesCount -= 1;
124         } else if (!oracleInfo.required && _required) {
125             requiredOraclesCount += 1;
126         }
127         if (oracleInfo.isValid && !_isValid) {
128             // remove oracle from oracleAddresses array without
129             for (uint256 i = 0; i < oracleAddresses.length; i++) {
130                 if (oracleAddresses[i] == _oracle) {
131                     oracleAddresses[i] = oracleAddresses[
132                         oracleAddresses.length - 1];
133                     oracleAddresses.pop();
134                     break;
135                 }
136             }
137             if (minConfirmations < (oracleAddresses.length + 1) / 2 +
138                 1) revert LowMinConfirmations();
139             oracleAddresses.push(_oracle);
140         }
141         oracleInfo.isValid = _isValid;
142         oracleInfo.required = _required;
143         emit UpdateOracle(_oracle, _required, _isValid);
144 }
```

Risk Level:

**Likelihood** - 2

**Impact** - 1

Recommendation:

It is recommended to use `++i` instead of `i++` to increment the value of a `uint` variable inside a loop. This also applies to variables declared inside the `for` loop, but does not apply outside of loops.

Remediation Plan:

**ACKNOWLEDGED:** The DeBridge team acknowledged this issue.

## 3.2 (HAL-02) ZERO ADDRESS NOT CHECKED - INFORMATIONAL

Description:

In some code sections, contract address variables are not being checked to avoid pointing to the zero address.

Code Location:

**Listing 9: WethGate.sol (Line 27)**

```
26     constructor(IWETH _weth) {
27         weth = _weth;
28     }
```

**Listing 10: SignatureVerifier.sol (Line 128)**

```
127     function setDebridgeAddress(address _debridgeAddress) external
128         onlyAdmin {
129             debridgeAddress = _debridgeAddress;
130         }
```

**Listing 11: DeBridgeTokenDeployer.sol (Lines 77,78,79)**

```
72     function initialize(
73         address _tokenImplementation,
74         address _deBridgeTokenAdmin,
75         address _debridgeAddress
76     ) public initializer {
77         tokenImplementation = _tokenImplementation;
78         deBridgeTokenAdmin = _deBridgeTokenAdmin;
79         debridgeAddress = _debridgeAddress;
80
81         _setupRole(DEFAULT_ADMIN_ROLE, msg.sender);
82     }
```

**Listing 12: DeBridgeGate.sol (Line 450)**

```
449   function setCallProxy(address _callProxy) external onlyAdmin {  
450     callProxy = _callProxy;  
451     emit CallProxyUpdated(_callProxy);  
452 }
```

**Listing 13: DeBridgeGate.sol (Line 477)**

```
476   function setSignatureVerifier(address _verifier) external  
↳ onlyAdmin {  
477     signatureVerifier = _verifier;  
478 }
```

**Listing 14: DeBridgeGate.sol (Line 483)**

```
482 function setDeBridgeTokenDeployer(address _deBridgeTokenDeployer)  
↳ external onlyAdmin {  
483   deBridgeTokenDeployer = _deBridgeTokenDeployer;  
484 }
```

**Listing 15: DeBridgeGate.sol (Line 489)**

```
488   function setFeeContractUpdater(address _value) external  
↳ onlyAdmin {  
489     feeContractUpdater = _value;  
490 }
```

**Listing 16: DeBridgeGate.sol (Line 495)**

```
494   function setWethGate(IWethGate _wethGate) external onlyAdmin {  
495     wethGate = _wethGate;  
496 }
```

**Listing 17: DeBridgeGate.sol (Line 531)**

```
530   function setFeeProxy(address _feeProxy) external onlyAdmin {  
531     feeProxy = _feeProxy;  
532 }
```

## FINDINGS & TECH DETAILS

Risk Level:

**Likelihood** - 2

**Impact** - 1

Recommendation:

When setting an address variable, always make sure the value is not zero.

Remediation Plan:

**ACKNOWLEDGED:** The DeBridge team acknowledged this issue.

# MANUAL TESTING

Halborn performed several manual tests in the following contracts:

- contracts/libraries/Flags.sol
- contracts/libraries/SignatureUtil.sol
- contracts/periphery/CallProxy.sol
- contracts/periphery/DeBridgeToken.sol
- contracts/periphery/DeBridgeTokenPaused.sol
- contracts/periphery/DeBridgeTokenProxy.sol
- contracts/periphery/FeeProxy.sol
- contracts/periphery/FeesCalculator.sol
- contracts/periphery/SimpleFeeProxy.sol
- contracts/periphery/UpgradeableBeacon.sol
- contracts/transfers/DeBridgeGate.sol
- contracts/transfers/DeBridgeTokenDeployer.sol
- contracts/transfers/OraclesManager.sol
- contracts/transfers/SignatureVerifier.sol
- contracts/transfers/WethGate.sol

The manual tests were focused on testing the main functions of these contracts:

- sendMessage()
- claim()
- \_publishSubmission()
- deployNewAsset()
- addOracles()
- submit()
- withdraw()
- call()
- callERC20()
- permit()
- withdrawFee()
- withdrawNativeFee()
- updateAsset()

No other issues than those mentioned during manual testing have been found.

# AUTOMATED TESTING

## 5.1 STATIC ANALYSIS REPORT

### Description:

Halborn used automated testing techniques to enhance the coverage of certain areas of the scoped contracts. Among the tools used was Slither, a Solidity static analysis framework. After Halborn verified all the contracts in the repository and was able to compile them correctly into their ABI and binary formats, Slither was run on the all-scoped contracts. This tool can statically verify mathematical relationships between Solidity variables to detect invalid or inconsistent usage of the contracts' APIs across the entire code-base.

### Slither results:

#### contracts/libraries/Flags.sol

```
Flags.getFlag(uint256, uint256) (contracts/libraries/Flags.sol#24-30) is never used and should be removed
Flags.setFlag(uint256, uint256, bool) (contracts/libraries/Flags.sol#36-45) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Parameter Flags.getFlag(uint256, uint256)_packedFlags (contracts/libraries/Flags.sol#25) is not in mixedCase
Parameter Flags.getFlag(uint256, uint256)_l1g (contracts/libraries/Flags.sol#26) is not in mixedCase
Parameter Flags.setFlag(uint256, uint256, bool)_packedFlags (contracts/libraries/Flags.sol#37) is not in mixedCase
Parameter Flags.setFlag(uint256, uint256, bool)_l1g (contracts/libraries/Flags.sol#38) is not in mixedCase
Parameter Flags.setFlag(uint256, uint256, bool)_value (contracts/libraries/Flags.sol#39) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
```

#### contracts/libraries/SignatureUtil.sol

```
SignatureUtil.parseSignature(bytes, uint256) (contracts/libraries/SignatureUtil.sol#32-49) uses assembly
SignatureUtil1.parseSignature(bytes, uint256) (contracts/libraries/SignatureUtil1.sol#32-49) uses assembly
SignatureUtil1.rlpJunit256(bytes, uint256) (contracts/libraries/SignatureUtil1.sol#51-61) uses assembly
- INLINE ASM (contracts/libraries/SignatureUtil1.sol#56-60)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

SignatureUtil1.getSignedMsg(bytes32) (contracts/libraries/SignatureUtil1.sol#13-15) is never used and should be removed
SignatureUtil1.parseSignature(bytes, uint256) (contracts/libraries/SignatureUtil1.sol#32-49) is never used and should be removed
SignatureUtil1.splitSignature(bytes) (contracts/libraries/SignatureUtil1.sol#19-30) is never used and should be removed
SignatureUtil1.toInt256(bytes, uint256) (contracts/libraries/SignatureUtil1.sol#51-61) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Parameter SignatureUtil.getUnsignedMsg(bytes32), submissionId (contracts/libraries/SignatureUtil.sol#13) is not in mixedCase
Parameter SignatureUtil1.getUnsignedSignature(bytes32), submissionId (contracts/libraries/SignatureUtil1.sol#13) is not in mixedCase
Parameter SignatureUtil1.parseSignature(bytes, bytes, uint256) (contracts/libraries/SignatureUtil1.sol#32-49) is not in mixedCase
Parameter SignatureUtil1.toInt256(bytes, uint256) (contracts/libraries/SignatureUtil1.sol#51-61) is not in mixedCase
Parameter SignatureUtil.toInt256(bytes, uint256)_bytes (contracts/libraries/SignatureUtil.sol#51) is not in mixedCase
Parameter SignatureUtil.toInt256(bytes, uint256)_offset (contracts/libraries/SignatureUtil.sol#51) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
```



```

AddressUpgradeable.functionCall(address, bytes) (node_modules/Openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#80-82) is never used and should be removed
AddressUpgradeable.functionCallWithValue(address, bytes, uint256) (node_modules/Openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#109-115) is never used and should be removed
AddressUpgradeable.functionStaticCall(address, bytes, string) (node_modules/Openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#142-144) is never used and should be removed
AddressUpgradeable.functionStaticCall(address, bytes, string) (node_modules/Openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#152-161) is never used and should be removed
BytesLib.concatStorage(bytes, bytes) (contracts/libraries/BytesLib.sol#91-226) is never used and should be removed
BytesLib.concatStorage(bytes, bytes) (contracts/libraries/BytesLib.sol#91-226) is never used and should be removed
BytesLib.concatStorage(bytes, bytes) (contracts/libraries/BytesLib.sol#49-57) is never used and should be removed
BytesLib.concatStorage(bytes, bytes) (contracts/libraries/BytesLib.sol#49-57) is never used and should be removed
BytesLib.concatStorage(bytes, bytes) (contracts/libraries/BytesLib.sol#185-254) is never used and should be removed
BytesLib.concatStorage(bytes, bytes) (contracts/libraries/BytesLib.sol#185-254) is never used and should be removed
BytesLib.toUint128(bytes, uint256) (contracts/libraries/BytesLib.sol#53-372) is never used and should be removed
BytesLib.toUint128(bytes, uint256) (contracts/libraries/BytesLib.sol#53-372) is never used and should be removed
BytesLib.toUint160(bytes, uint256) (contracts/libraries/BytesLib.sol#319-281) is never used and should be removed
BytesLib.toUint160(bytes, uint256) (contracts/libraries/BytesLib.sol#319-281) is never used and should be removed
BytesLib.toUint64(bytes, uint256) (contracts/libraries/BytesLib.sol#341-580) is never used and should be removed
BytesLib.toUint8(bytes, uint256) (contracts/libraries/BytesLib.sol#308-317) is never used and should be removed
BytesLib.toUint96(bytes, uint256) (contracts/libraries/BytesLib.sol#352-361) is never used and should be removed
ContextUpgradeable._ContextInitUnchained() (node_modules/Openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#22-23) is never used and should be removed
ContextUpgradeable._msgData() (node_modules/Openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#28-30) is never used and should be removed
ERC165Upgradeable._ERC165Init() (node_modules/Openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#26-26) is never used and should be removed
ERC165Upgradeable._ERC165Init() (node_modules/Openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#428-429) is never used and should be removed
Flags.setFlaguint256(uint256,bool) (contracts/libraries/Flags.sol#36-45) is never used and should be removed
SafeERC20Upgradeable.safeApprove(IERC20Upgradeable,address,uint256) (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/utils/SafeERC20Upgradeable.sol#45-58) is never used and should be removed
SafeERC20Upgradeable.safeDecreaseAllowance(IERC20Upgradeable,address,uint256) (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/utils/SafeERC20Upgradeable.sol#69-80) is never used and should be removed
SafeERC20Upgradeable.safeIncreaseAllowance(IERC20Upgradeable,address,uint256) (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/utils/SafeERC20Upgradeable.sol#26-26) is never used and should be removed
SafeERC20Upgradeable.safeTransferFrom(IERC20Upgradeable,address,address,uint256) (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/utils/SafeERC20Upgradeable.sol#29-36) is never used and should be removed
StringUpgradeable.toHexString(uint256) (node_modules/Openzeppelin/contracts-upgradeable/utils/StringUpgradeable.sol#40-51) is never used and should be removed
StringUpgradeable.toString(uint256) (node_modules/Openzeppelin/contracts-upgradeable/utils/StringUpgradeable.sol#15-35) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-or-solidity

Pragma version >= 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#4) allows old versions
Pragma version < 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#4) allows old versions
Pragma version >= 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#14) allows old versions
Pragma version < 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#14) allows old versions
Pragma version >= 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/contract-upgradeable/AccessControlUpgradeable.sol#4) allows old versions
Pragma version < 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/contract-upgradeable/AccessControlUpgradeable.sol#4) allows old versions
Pragma version >= 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/contract-upgradeable/AccessControlUpgradeable.sol#12) allows old versions
Pragma version < 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/contract-upgradeable/AccessControlUpgradeable.sol#12) allows old versions
Pragma version >= 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/contract-upgradeable/AccessControlUpgradeable.sol#152-161) allows old versions
Pragma version < 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/contract-upgradeable/AccessControlUpgradeable.sol#152-161) allows old versions
Low level call in AddressUpgradeable.sendValue(address,uint256) (node_modules/Openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#55-60):
  - (success, returnData) = target.call{value: value}();
  Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Function AccessControlUpgradeable._AccessControlInit() (node_modules/Openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#51-55) is not in mixedCase
Function AccessControlUpgradeable._AccessControlInit_unchained() (node_modules/Openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#57-68) is not in mixedCase
Variable AccessControlUpgradeable._gap (node_modules/Openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#56) is not in mixedCase
Function ContextUpgradeable._ContextInitUnchained() (node_modules/Openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#22-23) is not in mixedCase
Function ContextUpgradeable._ContextInitUnchained() (node_modules/Openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#22-23) is not in mixedCase
Variable ContextUpgradeable._gap (node_modules/Openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#31) is not in mixedCase
Function ERC165Upgradeable._ERC165Init() (node_modules/Openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#24-26) is not in mixedCase
Function ERC165Upgradeable._ERC165Init() (node_modules/Openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#428-429) is not in mixedCase
Variable ERC165Upgradeable._gap (node_modules/Openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#36) is not in mixedCase
Parameter BytesLib.concat(bytes,bytes)_preBytes (contracts/libraries/BytesLib.sol#14) is not in mixedCase
Parameter BytesLib.concat(bytes,bytes)_postBytes (contracts/libraries/BytesLib.sol#14) is not in mixedCase
Parameter BytesLib.concatStorage(bytes,bytes)_preBytes (contracts/libraries/BytesLib.sol#91) is not in mixedCase
Parameter BytesLib.concatStorage(bytes,bytes)_postBytes (contracts/libraries/BytesLib.sol#91) is not in mixedCase
Parameter BytesLib.slice(uint256,uint256)_bytes (contracts/libraries/BytesLib.sol#229) is not in mixedCase
Parameter BytesLib.slice(bytes,uint256,uint256)_start (contracts/libraries/BytesLib.sol#238) is not in mixedCase
Parameter BytesLib.slice(bytes,uint256,uint256)_start (contracts/libraries/BytesLib.sol#238) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_bytes (contracts/libraries/BytesLib.sol#275) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#275) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#297) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#301) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#301) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#308) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#308) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#319) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#319) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#330) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#330) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#341) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#341) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#352) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#352) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#363) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#363) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#374) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#374) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#385) is not in mixedCase
Parameter BytesLib.toAddress(bytes,uint256)_start (contracts/libraries/BytesLib.sol#385) is not in mixedCase
Parameter BytesLib.equal(bytes,bytes)_preBytes (contracts/libraries/BytesLib.sol#196) is not in mixedCase
Parameter BytesLib.equal(bytes,bytes)_postBytes (contracts/libraries/BytesLib.sol#196) is not in mixedCase
Parameter BytesLib.equalStorage(bytes,bytes)_postBytes (contracts/libraries/BytesLib.sol#44) is not in mixedCase
Parameter BytesLib.getFlag(uint256,uint256)_packedFlags (contracts/libraries/Flags.sol#25) is not in mixedCase
Parameter Flags.getFlag(uint256,uint256)_flag (contracts/libraries/Flags.sol#20) is not in mixedCase
Parameter Flags.getFlag(uint256,uint256)_flag (contracts/libraries/Flags.sol#20) is not in mixedCase
Parameter Flags.setFlag(uint256,uint256,_bool) _flag (contracts/libraries/Flags.sol#38) is not in mixedCase
Parameter Flags.setFlag(uint256,uint256,_bool) _value (contracts/libraries/Flags.sol#97) is not in mixedCase
Parameter CallProxy.call(address,address,bytes,uint256,bytes,uint256)_ReserveAddress (contracts/periphery/CallProxy.sol#78) is not in mixedCase
Parameter CallProxy.call(address,address,bytes,uint256,bytes,uint256)_returnData (contracts/periphery/CallProxy.sol#75) is not in mixedCase
Parameter CallProxy.call(address,address,bytes,uint256,bytes,uint256)_Data (contracts/periphery/CallProxy.sol#77) is not in mixedCase
Parameter CallProxy.call(address,address,bytes,uint256,bytes,uint256)_Flag (contracts/periphery/CallProxy.sol#78) is not in mixedCase
Parameter CallProxy.call(address,address,bytes,uint256,bytes,uint256)_NativeSender (contracts/periphery/CallProxy.sol#79) is not in mixedCase
Parameter CallProxy.callERC20(address,address,address,bytes,uint256,bytes,uint256)_call (contracts/periphery/CallProxy.sol#102) is not in mixedCase
Parameter CallProxy.callERC20(address,address,address,bytes,uint256,bytes,uint256)_receive (contracts/periphery/CallProxy.sol#108) is not in mixedCase
Parameter CallProxy.callERC20(address,address,address,bytes,uint256,bytes,uint256)_transfer (contracts/periphery/CallProxy.sol#110) is not in mixedCase
Parameter CallProxy.callERC20(address,address,address,bytes,uint256,bytes,uint256)_NativeSender (contracts/periphery/CallProxy.sol#111) is not in mixedCase
Parameter CallProxy.callERC20(address,address,address,bytes,uint256,bytes,uint256)_chainIdFrom (contracts/periphery/CallProxy.sol#112) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

BytesLib.toAddress(bytes,uint256) (contracts/libraries/BytesLib.sol#207-306) uses literals with too many digits!
  - tempAddress = abi.encodePacked(_bytes + 0x20 + start) / 0x10000000000000000000000000000000 (contracts/libraries/BytesLib.sol#302)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#too-many-digits

AccessControlUpgradeable._gap (node_modules/Openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#232) is never used in CallProxy (contracts/periphery/CallProxy.sol#16-235)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-state-variable

grantRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.grantRole(bytes32,address) (node_modules/Openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#139-141)
revokeRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.revokeRole(bytes32,address) (node_modules/Openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#152-154)
renounceRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.renounceRole(bytes32,address) (node_modules/Openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#170-174)
initialize() should be declared external:
  - CallProxy.initialize() (contracts/periphery/CallProxy.sol#67-69)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#public-function-that-could-be-declared-external

```

```

contracts/periphery/DeBridgeToken.sol
DeBridgeToken.permit(address,address,uint256,uint256,uint8,bytes32,bytes32) (contracts/periphery/DeBridgeToken.sol#110-142) uses timestamp for comparisons
  - Dangerous comparisons
    - require(bool,string)(deadline >= block.timestamp,permit EXPIRED) (contracts/periphery/DeBridgeToken.sol#119)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

DeBridgeToken.initialize(string,string,uint8,address,address[]) (contracts/periphery/DeBridgeToken.sol#54-90) uses assembly
  - INLINE ASM (contracts/periphery/DeBridgeToken.sol#76-78)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Different version of Solidity are used:
  - Version used: ['0.8.6', '0.8.7']
    - 0.8.6 (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#4)
    - 0.8.6 (node_modules/openzeppelin/contracts-upgradeable/proxy/Initializable.sol#4)
    - 0.8.6 (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradable.sol#4)
    - 0.8.6 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#4)
    - 0.8.6 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20Pausable.sol#4)
    - 0.8.6 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20MetadataUpgradable.sol#4)
    - 0.8.6 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PermitUpgradable.sol#4)
    - 0.8.6 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ContextUpgradable.sol#4)
    - 0.8.6 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/IERC20Upgradable.sol#4)
    - 0.8.6 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/IERC20Upgradeable.sol#4)
    - 0.8.6 (node_modules/openzeppelin/contracts-upgradeable/utility/introspection/IERC165Upgradable.sol#4)
    - 0.8.7 (contracts/interfaces/IDeBridgeToken.sol#2)
    - 0.8.7 (contracts/interfaces/IDeBridgeUpgradeable.sol#3)
    - 0.8.7 (contracts/interfaces/IDeBridgeV1.sol#2)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#different-pragma-directives-are-used

AccessControlUpgradable._AccessControl_init() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#51-55) is never used and should be removed
AccessControlUpgradable._AccessControl_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#57-58) is never used and should be removed
AccessControlUpgradable._setRoleAdmin(bytes32,bytes32) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#203-207) is never used and should be removed
ContextUpgradeable._Context_init() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#18-20) is never used and should be removed
ContextUpgradeable._Context_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#22-24) is never used and should be removed
ContextUpgradeable._ContextUpgradeable_init() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#25-27) is never used and should be removed
ERC16Upgradable._ERC165_init() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradable.sol#22-26) is never used and should be removed
ERC16Upgradable._ERC165_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradable.sol#28-29) is never used and should be removed
ERC20Upgradable._ERC20Pausable_init() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20PausableUpgradable.sol#18-21) is never used and should be removed
ERC20Upgradable._ERC20Pausable_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20PausableUpgradable.sol#23-25) is never used and should be removed
ERC20Upgradable._ERC20Init(string) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#34-37) is never used and should be removed
PausableUpgradable._Pausable_init() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradable.sol#4-7) is never used and should be removed
PausableUpgradable._Pausable_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradable.sol#11-14) is never used and should be removed
StringUpgradeable.toString(uint256) (node_modules/openzeppelin/contracts-upgradeable/utils/StringUpgradeable.sol#15-35) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version<0.8.0 (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#4) allows old versions
Pragma version>0.8.0 (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#4) allows old versions
Pragma version<0.8.0 (node_modules/openzeppelin/contracts-upgradeable/proxy/utils/Initializable.sol#4) allows old versions
Pragma version>0.8.0 (node_modules/openzeppelin/contracts-upgradeable/proxy/utils/Initializable.sol#4) allows old versions
Pragma version<0.8.0 (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradable.sol#4) allows old versions
Pragma version>0.8.0 (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradable.sol#4) allows old versions
Pragma version<0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#4) allows old versions
Pragma version>0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#4) allows old versions
Pragma version<0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradable.sol#4) allows old versions
Pragma version>0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradable.sol#4) allows old versions
Pragma version<0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20MetadataUpgradable.sol#4) allows old versions
Pragma version>0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20MetadataUpgradable.sol#4) allows old versions
Pragma version<0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/IERC20Upgradable.sol#4) allows old versions
Pragma version>0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/IERC20Upgradable.sol#4) allows old versions
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-version-of-solidity

Function AccessControlUpgradable._AccessControl_init() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#51-55) is not in mixedCase
Function AccessControlUpgradable._AccessControl_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#57-58) is not in mixedCase
Variable AccessControlUpgradable._roleAdmins(bytes32,bytes32) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#52-53) is not in mixedCase
Function PausableUpgradable._Pausable_init() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradable.sol#34-37) is not in mixedCase
Function PausableUpgradable._Pausable_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradable.sol#39-41) is not in mixedCase
Variable PausableUpgradable._osp (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradable.sol#97) is not in mixedCase
Function ERC20Upgradable._ERC20Pausable_init() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20PausableUpgradable.sol#60-68) is not in mixedCase
Function ERC20Upgradable._ERC20Pausable_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20PausableUpgradable.sol#69-70) is not in mixedCase
Variable ERC20Upgradable._ERC20_init() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#18-21) is not in mixedCase
Function ERC20Upgradable._ERC20_init_unchained(string,string) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#18-22) is not in mixedCase
Function ERC20Upgradable._ERC20Pausable_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20PausableUpgradable.sol#24-26) is not in mixedCase
Variable ERC20Upgradable._gap (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20PausableUpgradable.sol#42) is not in mixedCase
Function ContextUpgradeable._Context_init() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#18-20) is not in mixedCase
Function ContextUpgradeable._Context_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#22-23) is not in mixedCase
Variable ERC165Upgradeable._ERC165_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradable.sol#20) is not in mixedCase
Function ERC165Upgradeable._ERC165_init_unchained_1() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradable.sol#21-24) is not in mixedCase
Parameter DeBridgeToken.burn(uint256)_amount (contracts/periphery/DeBridgeToken.sol#98) is not in mixedCase
Parameter DeBridgeToken.permit(address,address,uint256,uint256,uint8,bytes32,bytes32)_owner (contracts/periphery/DeBridgeToken.sol#111) is not in mixedCase
Parameter DeBridgeToken.permit(address,address,uint256,uint256,uint8,bytes32,bytes32)_spender (contracts/periphery/DeBridgeToken.sol#112) is not in mixedCase
Parameter DeBridgeToken.permit(address,address,uint256,uint256,uint8,bytes32,bytes32)_deadline (contracts/periphery/DeBridgeToken.sol#113) is not in mixedCase
Parameter DeBridgeToken.permit(address,address,uint256,uint256,uint8,bytes32,bytes32)_deadline_1 (contracts/periphery/DeBridgeToken.sol#114) is not in mixedCase
Parameter DeBridgeToken._gap (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#115) is not in mixedCase
Parameter DeBridgeToken._permits(address,address,uint256,uint256,uint8,bytes32,bytes32)_deadline (contracts/periphery/DeBridgeToken.sol#116) is not in mixedCase
Parameter DeBridgeToken.DOMAIN_SEPARATOR (contracts/periphery/DeBridgeToken.sol#21) is not in mixedCase
Variable DeBridgeToken._decimals (contracts/periphery/DeBridgeToken.sol#29) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

ERC20PausableUpgradable._gap (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradable.sol#42) is never used in DeBridgeToken (contracts/periphery/DeBridgeToken.sol#10-166)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-state-variable

grantRole(bytes32,address) should be declared external:
  - AccessControlUpgradable.grantRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#139-141)
revokeRole(bytes32,address) should be declared external:
  - AccessControlUpgradable.revokeRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#152-154)
renounceRole(bytes32,address) should be declared external:
  - AccessControlUpgradable.renounceRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#170-174)
name() should be declared external:
  - ERC20Upgradable.name() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#68-70)
symbol() should be declared external:
  - ERC20Upgradable.symbol() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#76-78)
decimals() should be declared external:
  - DeBridgeToken.decimals() (contracts/periphery/DeBridgeToken.sol#145-147)
totalSupply() should be declared external:
  - ERC20Upgradable.totalSupply() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#93-95)
balanceOf(address) should be declared external:
  - ERC20Upgradable.balanceOf(address) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#107-109)
transfer(address,uint256) should be declared external:
  - ERC20Upgradable.transfer(address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#119-122)
allowance(address,address) should be declared external:
  - ERC20Upgradable.allowance(address,address) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#127-129)
approve(address,uint256) should be declared external:
  - ERC20Upgradable.approve(address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#138-141)
transferFrom(address,address,uint256) should be declared external:
  - ERC20Upgradable.transferFrom(address,address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#156-158)
increaseAllowance(address,uint256) should be declared external:
  - ERC20Upgradable.increaseAllowance(address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#184-187)
decreaseAllowance(address,uint256) should be declared external:
  - ERC20Upgradable.decreaseAllowance(address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#203-211)
paused() should be declared external:
  - DeBridgeToken.paused() (contracts/periphery/DeBridgeToken.sol#158-159)
unpause() should be declared external:
  - DeBridgeToken.unpause() (contracts/periphery/DeBridgeToken.sol#155-157)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#public-function-that-could-be-declared-external

```

## contracts/periphery/DeBridgeTokenPaused.sol

```

DeBridgeToken.permit(address, address, uint256, uint256, uint8, bytes32) (contracts/periphery/DeBridgeToken.sol#110-142) uses timestamp for comparisons
  - Dangerous comparisons:
    - require(bool,string).deadline >= block.timestamp,permit: EXPIRED (contracts/periphery/DeBridgeToken.sol#119)
  Reference: https://github.com/crytic/slither/wikil/Detector-Documentation#block-timestamp

DeBridgeToken.initialize(string,string,uint8,address,address[]) (contracts/periphery/DeBridgeToken.sol#54-90) uses assembly
  - INLINE ASM (contracts/periphery/DeBridgeToken.sol#76-78)
  Reference: https://github.com/crytic/slither/wikil/Detector-Documentation#assembly-usage

Different versions of Solidity are used:
  - Version used: '^0.8.4', '^0.8.7'
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/access/AccesControlUpgradeable.sol#16)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/math/MathUpgradeable.sol#16)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/proxy/utils/Initializable.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#14)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#14)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20MetadataUpgradeable.sol#14)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20PausableUpgradeable.sol#14)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20MetadataUpgradeable.sol#14)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/IERC20MetadataUpgradeable.sol#14)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/context/Upgradeable.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/math/MathUpgradeable.sol#14)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/proxy/ProxyUpgradeable.sol#14)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/strings/StringUpgradeable.sol#14)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/timing/StopUpgradeable.sol#14)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/upgradeability/Upgradeable.sol#14)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/IERC165Upgradeable.sol#4)
  Reference: https://github.com/crytic/slither/wikil/Detector-Documentation#different-pragma-directives-are-used

AccessControlUpgradeable._AccessControl_init() (node_modules/openzeppelin/contracts-upgradeable/access/AccesControlUpgradeable.sol#51-55) is never used and should be removed
AccessControlUpgradeable._AccessControl_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/access/AccesControlUpgradeable.sol#57-58) is never used and should be removed
AccessControlUpgradeable._setRoleAdmin(bytes32,bytes32) (node_modules/openzeppelin/contracts-upgradeable/access/AccesControlUpgradeable.sol#23-27) is never used and should be removed
ContextUpgradeable._Context_init() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#19-21) is never used and should be removed
ContextUpgradeable._Context_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#23-27) is never used and should be removed
ContextUpgradeable._msgData() (node_modules/openzeppelin/contracts-upgradeable/utils/context/Upgradeable.sol#28-30) is never used and should be removed
ContextUpgradeable._msgData() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/IERC165Upgradeable.sol#4)
  Reference: https://github.com/crytic/slither/wikil/Detector-Documentation#msg-data-is-always-zero

ContextUpgradeable._msgData() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/IERC165Upgradeable.sol#4) is never used and should be removed
DeBridgeToken._beforeTokenTransfer(address,uint256) (contracts/periphery/DeBridgeToken.sol#19-165) is never used and should be removed
ERC165Upgradeable._ERC165_init() (node_modules/openzeppelin/contracts-upgradeable/access/AccesControlUpgradeable.sol#24-26) is never used and should be removed
ERC165Upgradeable._ERC165_init() (node_modules/openzeppelin/contracts-upgradeable/math/MathUpgradeable.sol#18-20) is never used and should be removed
ERC20PausableUpgradeable._ERC20Pausable_init() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.sol#18-22) is never used and should be removed
ERC20PausableUpgradeable._ERC20Pausable_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.sol#24-25) is never used and should be removed
ERC20PausableUpgradeable._beforeTokenTransfer(address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.sol#33-41) is never used and should be removed
ERC20PausableUpgradeable._beforeTokenTransfer(address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#33-51) is never used and should be removed
ERC20PausableUpgradeable._beforeTokenTransfer(address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#33-51) is never used and should be removed
PausableUpgradeable._Pausable_init() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#34-37) is never used and should be removed
PausableUpgradeable._Pausable_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#39-41) is never used and should be removed
StringUpgradeable.toString(uint256) (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/IERC165Upgradeable.sol#40-51) is never used and should be removed
StringUpgradeable.toHexString(uint256) (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/IERC165Upgradeable.sol#42-53) is never used and should be removed
  Reference: https://github.com/crytic/slither/wikil/Detector-Documentation#read-code

Pragma version^0.8.8 (node_modules/openzeppelin/contracts-upgradeable/access/AccesControlUpgradeable.sol#4) allows old versions
Pragma version^0.8.8 (node_modules/openzeppelin/contracts-upgradeable/access/AccesControlUpgradeable.sol#4) allows old versions
Pragma version^0.8.8 (node_modules/openzeppelin/contracts-upgradeable/proxy/utils/Initializable.sol#4) allows old versions
Pragma version^0.8.8 (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#4) allows old versions
Pragma version^0.8.8 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#4) allows old versions
Pragma version^0.8.8 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.sol#4) allows old versions
Pragma version^0.8.8 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20MetadataUpgradeable.sol#4) allows old versions
Pragma version^0.8.8 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/IERC20Upgradeable.sol#4) allows old versions
Pragma version^0.8.8 (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/IERC165Upgradeable.sol#4) allows old versions
Pragma version^0.8.8 (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/IERC165Upgradeable.sol#4) allows old versions
  Reference: https://github.com/crytic/slither/wikil/Detector-Documentation#incorrect-versions

Function AccessControlUpgradeable._AccessControl_init() (node_modules/openzeppelin/contracts-upgradeable/access/AccesControlUpgradeable.access/AccesControlUpgradeable.sol#51-55) is not in mixedCase
Variable AccessControlUpgradeable._AccessControl_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/access/AccesControlUpgradeable.access/AccesControlUpgradeable.sol#57-58) is not in mixedCase
Variable AccessControlUpgradeable._setRoleAdmin(bytes32,bytes32) (node_modules/openzeppelin/contracts-upgradeable/access/AccesControlUpgradeable.access/AccesControlUpgradeable.sol#23-27) is not in mixedCase
Function PausableUpgradeable._Pausable_init() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.access/PausableUpgradeable.sol#39-41) is not in mixedCase
Function PausableUpgradeable._Pausable_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.access/PausableUpgradeable.sol#39-41) is not in mixedCase
Variable ERC20PausableUpgradeable._gap (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.access/ERC20PausableUpgradeable.sol#24-25) is not in mixedCase
Function ERC20PausableUpgradeable._ERC20Pausable_init() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.access/ERC20PausableUpgradeable.sol#18-22) is not in mixedCase
Function ERC20PausableUpgradeable._ERC20Pausable_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.access/ERC20PausableUpgradeable.sol#24-25) is not in mixedCase
Function ContextUpgradeable._Context_init() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.access/ContextUpgradeable.sol#22-23) is not in mixedCase
Variable ContextUpgradeable._gap (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.access/ContextUpgradeable.sol#31) is not in mixedCase
Function ERC20Upgradeable._ERC20_init(string) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#45-48) is not in mixedCase
Function ERC20Upgradeable._ERC20_init(string) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.access/ERC20PausableUpgradeable.sol#45-48) is not in mixedCase
Variable ERC20Upgradeable._gap (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#32) is not in mixedCase
Function ERC20PausableUpgradeable._ERC20Pausable_init() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.access/ERC20PausableUpgradeable.sol#18-22) is not in mixedCase
Function ERC20PausableUpgradeable._ERC20Pausable_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.access/ERC20PausableUpgradeable.sol#24-25) is not in mixedCase
Function ContextUpgradeable._Context_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.access/ContextUpgradeable.sol#22-23) is not in mixedCase
Variable ContextUpgradeable._gap (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.access/ContextUpgradeable.sol#31) is not in mixedCase
Function ERC20Upgradeable._ERC20_init(string) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#45-48) is not in mixedCase
Function ERC20Upgradeable._ERC20_init(string) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.access/ERC20PausableUpgradeable.sol#45-48) is not in mixedCase
Function ERC20PausableUpgradeable._ERC20Pausable_init() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.access/ERC20PausableUpgradeable.sol#18-22) is not in mixedCase
Function ERC20PausableUpgradeable._ERC20Pausable_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.access/ERC20PausableUpgradeable.sol#24-25) is not in mixedCase
Function ContextUpgradeable._Context_init() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.access/ContextUpgradeable.sol#22-23) is not in mixedCase
Variable ContextUpgradeable._gap (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.access/ContextUpgradeable.sol#31) is not in mixedCase
Function ERC165Upgradeable._ERC165_init() (node_modules/openzeppelin/contracts-upgradeable/math/MathUpgradeable.access/ERC165Upgradeable.sol#18-20) is not in mixedCase
Function ERC165Upgradeable._ERC165_init() (node_modules/openzeppelin/contracts-upgradeable/math/MathUpgradeable.access/ERC165Upgradeable.sol#24-26) is not in mixedCase
Variable ERC165Upgradeable._gap (node_modules/openzeppelin/contracts-upgradeable/math/MathUpgradeable.access/ERC165Upgradeable.sol#32) is not in mixedCase
Parameter DeBridgeToken._mint(address,uint256,_receiver) (contracts/periphery/DeBridgeToken.sol#13) is not in mixedCase
Parameter DeBridgeToken._mint(address,uint256,_spender, uint8,bytes32,bytes2,bytes2) (contracts/periphery/DeBridgeToken.sol#111) is not in mixedCase
Parameter DeBridgeToken._mint(address,address,uint256,uint256,uint8,bytes2,bytes2,bytes2) (contracts/periphery/DeBridgeToken.sol#112) is not in mixedCase
Parameter DeBridgeToken._mint(address,address,uint256,uint256,uint8,bytes2,bytes2,bytes2) (contracts/periphery/DeBridgeToken.sol#113) is not in mixedCase
Parameter DeBridgeToken._mint(address,address,uint256,uint256,uint8,bytes2,bytes2,bytes2) (contracts/periphery/DeBridgeToken.sol#114) is not in mixedCase
Parameter DeBridgeToken._mint(address,address,uint256,uint256,uint8,bytes2,bytes2,bytes2) (contracts/periphery/DeBridgeToken.sol#115) is not in mixedCase
Parameter DeBridgeToken._mint(address,address,uint256,uint256,uint8,bytes2,bytes2,bytes2) (contracts/periphery/DeBridgeToken.sol#116) is not in mixedCase
Parameter DeBridgeToken._mint(address,address,uint256,uint256,uint8,bytes2,bytes2,bytes2) (contracts/periphery/DeBridgeToken.sol#117) is not in mixedCase
Variable DeBridgeToken._decimals (contracts/periphery/DeBridgeToken.sol#29) is not in mixedCase
  Reference: https://github.com/crytic/slither/wikil/Detector-Documentation#conformance-to-solidity-naming-conventions

ERC20PausableUpgradeable._gap (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.access/ERC20PausableUpgradeable.sol#42) is never used in DeBridgeTokenPaused (contracts/periphery/DeBridgeTokenPaused
  Reference: https://github.com/crytic/slither/wikil/Detector-Documentation#unused-state-variable

grantRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.grantRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccesControlUpgradeable.access/AccesControlUpgradeable.sol#139-141)
  - revokeRole(bytes32,address) should be declared external:
    - AccessControlUpgradeable.revokeRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccesControlUpgradeable.access/AccesControlUpgradeable.sol#152-154)
  renounceRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.renounceRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccesControlUpgradeable.access/AccesControlUpgradeable.sol#170-174)
  name() should be declared external:
  - ERC20Upgradeable.name() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#68-70)
  symbol() should be declared external:
  - ERC20Upgradeable.symbol() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#76-78)
  decimal() should be declared external:
  - DeBridgeToken.decimal() (contracts/periphery/DeBridgeToken.access/DeBridgeToken.sol#147)
  - ERC20Upgradeable.decimal() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#93-95)
  totalSupply() should be declared external:
  - ERC20Upgradeable.totalSupply() (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#100-102)
  balanceOf(address) should be declared external:
  - ERC20Upgradeable.balanceOf(address) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#107-109)
  transferFrom(address,address,uint256) should be declared external:
  - ERC20Upgradeable.transferFrom(address,address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#119-122)
  allowance(address,address) should be declared external:
  - ERC20Upgradeable.allowance(address,address) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#127-129)
  approve(address,uint256) should be declared external:
  - ERC20Upgradeable.approve(address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#138-141)
  transferFrom(address,address,uint256) should be declared external:
  - ERC20Upgradeable.transferFrom(address,address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#156-178)
  increaseAllowance(address,uint256) should be declared external:
  - ERC20Upgradeable.increaseAllowance(address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#184-187)
  decreaseAllowance(address,uint256) should be declared external:
  - ERC20Upgradeable.decreaseAllowance(address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.access/ERC20Upgradeable.sol#203-211)
  paused() should be declared external:
  - DeBridgeToken.paused() (contracts/periphery/DeBridgeToken.access/DeBridgeToken.sol#159-152)
  unpause() should be declared external:
  - DeBridgeToken.unpause() (contracts/periphery/DeBridgeToken.access/DeBridgeToken.sol#155-157)
  0x0000000000000000000000000000000000000000 (node_modules/openzeppelin/contracts-upgradeable/math/MathUpgradeable.access/MathUpgradeable.sol#1)
  Reference: https://github.com/crytic/slither/wikil/Detector-Documentation#public-function-that-could-be-declared-external

```

```

contracts/periphery/DeBridgeTokenProxy.sol
ERC1967Upgrade._upgradeToAndCall(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967Upgrade.sol#64-73) ignores return value by Address.functionDelegateCall(newImplementation,data) (node_rada.sol#71)
ERC1967Upgrade._upgradeToAndCallSecure(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967Upgrade.sol#88-108) ignores return value by Address.functionDelegateCall(newImplementation,data)
1967Upgrade.sol#89)
ERC1967Upgrade._upgradeToAndCallSecure(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#89-108) ignores return value by Address.functionDelegateCall(newImplementation,abi.e1) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#98-101)
ERC1967Upgrade._upgradeToAndCallSecure(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#183-193) ignores return value by Address.functionDelegateCall(IBeacon(newBeacon).imp.s/proxy/ERC1967/ERC1967Upgrade.sol#191)
Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#unused-return

Reentrance in ERC1967Upgrade._upgradeToAndCallSecure(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#88-108):
External calls:
- Address.functionDelegateCall(newImplementation,data) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#98)
- Address.functionDelegateCall(newImplementation,abi.encodeWithSignature("proxy/ERC1967Upgrade.oldImplementation")) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#98-101)
Event emitted after the call(s):
- Upgraded(newImplementation) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#106)
- upgradedTo(newImplementation) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#106)
Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#reentrancy-vulnerabilities-3

Proxy.delegateAddress() (node_modules/Openzeppelin/contracts/proxy/proxy.sol#22-45) uses assembly
- INLINE ASM (node_modules/Openzeppelin/contracts/proxy/proxy.sol#23-35)
Address.verifyCallResult(bool,bytes,string) (node_modules/Openzeppelin/contracts/utils/Address.sol#196-216) uses assembly
- INLINE ASM (node_modules/Openzeppelin/contracts/utils/Address.sol#197-213)
StorageSlot.getBooleanSlot(bytes32) (node_modules/Openzeppelin/contracts/storage/StorageSlot.sol#52-56) uses assembly
- INLINE ASM (node_modules/Openzeppelin/contracts/storage/StorageSlot.sol#53-55)
StorageSlot.getBooleanSlot(bytes32) (node_modules/Openzeppelin/contracts/storage/StorageSlot.sol#61-65) uses assembly
- INLINE ASM (node_modules/Openzeppelin/contracts/storage/StorageSlot.sol#62-64)
StorageSlot.getBooleanSlot(bytes32) (node_modules/Openzeppelin/contracts/storage/StorageSlot.sol#70-74) uses assembly
- INLINE ASM (node_modules/Openzeppelin/contracts/storage/StorageSlot.sol#71-73)
StorageSlot.getUInt256Slot(bytes32) (node_modules/Openzeppelin/contracts/storage/StorageSlot.sol#79-83) uses assembly
- INLINE ASM (node_modules/Openzeppelin/contracts/storage/StorageSlot.sol#80-82)
Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#assembly-usage

Different versions of Solidity are used:
- Version used: 0.8.0-0.8.2, +0.8.7*
- 0.8.2 (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#4)
- +0.8.0 (node_modules/Openzeppelin/contracts/proxy.sol#14)
- +0.8.8 (node_modules/Openzeppelin/contracts/proxy/beacon/IBeaconProxy.sol#4)
- +0.8.8 (node_modules/Openzeppelin/contracts/proxy/beacon/IBeacon.sol#4)
- +0.8.8 (node_modules/Openzeppelin/contracts/proxy/beacon/IBeacon.sol#4)
- +0.8.8 (node_modules/Openzeppelin/contracts/proxy/beacon/IBeacon.sol#4)
- +0.8.8 (node_modules/Openzeppelin/contracts/proxy/beacon/IBeacon.sol#4)
- +0.8.7 (contracts/periphery/DeBridgeTokenProxy.sol#2)
Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#different-pragma-directives-are-used

Address.functionCall(address,bytes) (node_modules/Openzeppelin/contracts/utils/Address.sol#80-82) is never used and should be removed
Address.functionCall(address,bytes,string) (node_modules/Openzeppelin/contracts/utils/Address.sol#98-96) is never used and should be removed
Address.functionCallWithValue(address,bytes,uint256) (node_modules/Openzeppelin/contracts/utils/Address.sol#109-115) is never used and should be removed
Address.functionStaticCall(address,bytes) (node_modules/Openzeppelin/contracts/utils/Address.sol#142-144) is never used and should be removed
Address.functionStaticCall(address,bytes,string) (node_modules/Openzeppelin/contracts/utils/Address.sol#152-163) is never used and should be removed
Address.sendValue(address,uint256) (node_modules/Openzeppelin/contracts/utils/Address.sol#65-69) is never used and should be removed
Address.sendValue(address,uint256) (node_modules/Openzeppelin/contracts/utils/Address.sol#152-163) is never used and should be removed
BeaconProxy.setBeacon(address,bytes) (node_modules/Openzeppelin/contracts/proxy/beacon/IBeaconProxy.sol#50-51) is never used and should be removed
ERC1967Upgrade._changeAdmin(address) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#142-145) is never used and should be removed
ERC1967Upgrade._getAdmin() (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#125-127) is never used and should be removed
ERC1967Upgrade._setAdmin(address) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#132-135) is never used and should be removed
ERC1967Upgrade._setImplementation(address) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#144-147) is never used and should be removed
ERC1967Upgrade._upgradeTo(address) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#84-87) is never used and should be removed
ERC1967Upgrade._upgradeToAndCall(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#106-108) is never used and should be removed
ERC1967Upgrade._upgradeToAndCallSecure(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#108-109) is never used and should be removed
StorageSlot.getBooleanSlot(bytes32) (node_modules/Openzeppelin/contracts/storage/StorageSlot.sol#70-74) is never used and should be removed
StorageSlot.getUInt256Slot(bytes32) (node_modules/Openzeppelin/contracts/storage/StorageSlot.sol#79-83) is never used and should be removed
Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#dead-code

Pragma version=0.8.2 (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts/proxy/IBeaconProxy.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts/proxy/beacon/IBeaconProxy.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts/proxy/beacon/IBeacon.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts/proxy/beacon/IBeacon.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts/proxy/beacon/IBeacon.sol#4) allows old versions
Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#incorrect-version-of-solidity

Low level call in Address.sendValue(address,uint256) (node_modules/Openzeppelin/contracts/utils/Address.sol#55-60):
- (success) = recipient.call{value: amount}() (node_modules/Openzeppelin/contracts/utils/Address.sol#56)
Low level call in Address.sendValue(address,uint256) (node_modules/Openzeppelin/contracts/utils/Address.sol#123-134):
- (success,returnData) = target.call{value: value}(data) (node_modules/Openzeppelin/contracts/utils/Address.sol#132)
Low level call in Address.functionStaticCall(address,bytes,string) (node_modules/Openzeppelin/contracts/utils/Address.sol#152-161):
- (success,returnData) = target.staticcall(data) (node_modules/Openzeppelin/contracts/utils/Address.sol#159)
Low level call in Address.functionStaticCall(address,bytes,string) (node_modules/Openzeppelin/contracts/utils/Address.sol#179-188):
- (success,returnData) = target.staticcall(data) (node_modules/Openzeppelin/contracts/utils/Address.sol#187)
Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#low-level-calls

```

```

contracts/periphery/FeeProxy.sol
FeeProxy.getMountOut(uint256,uint256) (contracts/periphery/FeeProxy.sol#258-269) uses a dangerous strict equality:
  - amount == 0 (contracts/periphery/FeeProxy.sol#263)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dangerous-strict-equalities

FeeProxy._burnTransfer(address,uint256,uint256,uint256) (contracts/periphery/FeeProxy.sol#217-234) ignores return value by debrigeGate.send(value: _nativeFixFee) (_erc20Token,_amount,_nativeChainId,feeProxyAddress: xy.sol#224-239)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-return-value

AddressUpgradable.isContract(address) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#27-37) uses assembly
  - INLINE ASM (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#33-35)
AddressUpgradable.verifyCallResult(bool,bytes,string) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#169-189) uses assembly
  - INLINE ASM (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#185-186)
FeeProxy._burnTransfer(address,uint256,uint256,uint256) (contracts/periphery/FeeProxy.sol#217-268) uses assembly
  - INLINE ASM (contracts/periphery/FeeProxy.sol#275-277)
FeeProxy.getChainId() (contracts/periphery/FeeProxy.sol#288-284) uses assembly
  - INLINE ASM (contracts/periphery/FeeProxy.sol#281-283)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Different version of Solidity are used:
  - Version used: ('0.8.0', '+0.8.7')
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#6)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#14)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/proxy/utils/Initializable.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#3)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/IERC20Upgradeable.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/StringsUpgradeable.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/IERC165Upgradeable.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/IERC165Upgradeable.sol#6)
    + 0.8.7 (contracts/interfaces/IDelegateGate.sol#2)
    + 0.8.7 (contracts/interfaces/IUniswapV2Pair.sol#2)
    + 0.8.7 (contracts/interfaces/IUniswapV2Pool.sol#2)
    + 0.8.7 (contracts/interfaces/IUniswapV2Pair.sol#2)
    + 0.8.7 (contracts/interfaces/IWETH.sol#2)
    + 0.8.7 (contracts/periphery/FeeProxy.sol#2)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#different-pragma-directives-are-used

AccessControlUpgradeable._AccessControl_init() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#55-56) is never used and should be removed
AccessControlUpgradeable._AccessControl_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#57-58) is never used and should be removed
AccessControlUpgradeable._AccessControl_reinitializer() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#285-287) is never used and should be removed
AddressUpgradable.functionCallWithValue(address,bytes,int256) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#109-115) is never used and should be removed
AddressUpgradable.functionCallWithValue(address,bytes,int256) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#122-123) is never used and should be removed
AddressUpgradable.functionCallWithValue(address,bytes,int256) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#152-161) is never used and should be removed
AddressUpgradable.functionCallWithValue(address,bytes,int256) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#88-92) is never used and should be removed
AddressUpgradable.functionCallWithValue(address,bytes,int256) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#18-20) is never used and should be removed
ContextUpgradeable._Context_init() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#18-20) is never used and should be removed
ContextUpgradeable._Context_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#122-123) is never used and should be removed
ContextUpgradeable._Context_reinitializer() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#122-123) is never used and should be removed
ERC165Upgradeable._ERC165_init() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#26-26) is never used and should be removed
ERC165Upgradeable._ERC165_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#28-29) is never used and should be removed
PausableUpgradeable._Pausable_init() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#37-37) is never used and should be removed
PausableUpgradeable._Pausable_init() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#69-70) is never used and should be removed
SafeERC20Upgradeable.safeApprove(IERC20Upgradeable,address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/utils/SafeERC20Upgradeable.sol#69-80) is never used and should be removed
SafeERC20Upgradeable.safeTransferFrom(IERC20Upgradeable,address,address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/utils/SafeERC20Upgradeable.sol#68-67) is never used and should be removed
SafeERC20Upgradeable.safeTransfer(IERC20Upgradeable,address,uint256) (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/utils/SafeERC20Upgradeable.sol#19-36) is never used and should be removed
StringUpgradeable.tostring(uint256) (node_modules/openzeppelin/contracts-upgradeable/utils/StringUpgradeable.sol#3-3) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version='0.8.0' (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#4) allows old versions
Pragma version='0.8.0' (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#4) allows old versions
Pragma version='0.8.0' (node_modules/openzeppelin/contracts-upgradeable/proxy/utils/Initializable.sol#4) allows old versions
Pragma version='0.8.0' (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#4) allows old versions
Pragma version='0.8.0' (node_modules/openzeppelin/contracts-upgradeable/token/ERC20/IERC20Upgradeable.sol#4) allows old versions
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-solidity

Low level call in AddressUpgradable.sendValue(address,uint256) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#68):
  - (success) = recipient.callValue(amount) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#68)
Low level call in AddressUpgradable.functionCallWithValue(address,bytes,int256) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#123-134):
  - (success,returnData) = target.callWithValue(value,data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
Low level call in FeeProxy.setTreasury(IWETH,address,uint256) (contracts/periphery/FeeProxy.sol#291-294):
  - (success,returnData) = target.staticcallWithValue(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#152-161)
Low level call in FeeProxy._safeTransferETH(address,uint256) (contracts/periphery/FeeProxy.sol#291-294):
  - (success) = to.callValue(value).value(bal) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#150)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Function AccessControlUpgradeable._AccessControl_init() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#51-55) is not in mixedCase
Function AccessControlUpgradeable._AccessControl_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#57-68) is not in mixedCase
Variable AccessControlUpgradeable._governor() (node_modules/openzeppelin/contracts-upgradeable/governance/Governor.sol#11) is not in mixedCase
Function PausableUpgradeable._Pausable_init() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#34-37) is not in mixedCase
Function PausableUpgradeable._Pausable_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#39-41) is not in mixedCase
Function PausableUpgradeable._Pausable_init_reinitializer() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#47) is not in mixedCase
Function PausableUpgradeable._Pausable_init_reinitializer_unchained() (node_modules/openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#48) is not in mixedCase
Function ContextUpgradeable._Context_init() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#22-23) is not in mixedCase
Variable ContextUpgradeable._gas() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#1) is not in mixedCase
Function ERC165Upgradeable._ERC165_init() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#26-26) is not in mixedCase
Function ERC165Upgradeable._ERC165_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#28-29) is not in mixedCase
Variable ERC165Upgradeable._gap() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#36) is not in mixedCase
Function IUniswapV2Pair.DOMAIN_SEPARATOR() (contracts/interfaces/IUniswapV2Pair.sol#8) is not in mixedCase
Function IUniswapV2Pair.PERMIT_TYPEHASH() (contracts/interfaces/IUniswapV2Pair.sol#32) is not in mixedCase
Function IUniswapV2Factory.setFeeProtocol(IWETH,bytes) (node_modules/openzeppelin/contracts-periphery/FeeProxy.sol#20) is not in mixedCase
Parameter FeeProxy.initialize(IUniswapV2Factory,IWETH).setFeeProtocol (contracts/periphery/FeeProxy.sol#66) is not in mixedCase
Parameter FeeProxy.setUniswapFactory(IUniswapV2Factory).uniswapFactory (contracts/periphery/FeeProxy.sol#82) is not in mixedCase
Parameter FeeProxy.setUniswapFactory(IUniswapV2Factory).setFeeProtocol (contracts/periphery/FeeProxy.sol#106) is not in mixedCase
Parameter FeeProxy.setTreasury(IWETH,address,uint256).setTreasury (contracts/periphery/FeeProxy.sol#90) is not in mixedCase
Parameter FeeProxy.setTreasury(uint256,bal)._treasuryAddress (contracts/periphery/FeeProxy.sol#90) is not in mixedCase
Parameter FeeProxy.setDeEToken(address)._deEToken (contracts/periphery/FeeProxy.sol#94) is not in mixedCase
Parameter FeeProxy.setDeEToken(address).setDeEToken (contracts/periphery/FeeProxy.sol#94) is not in mixedCase
Parameter FeeProxy.setFeeProtocol(address,uint256).setFeeProtocol (contracts/periphery/FeeProxy.sol#99) is not in mixedCase
Parameter FeeProxy.withdrawFee(address).address (contracts/periphery/FeeProxy.sol#105) is not in mixedCase
Parameter FeeProxy.withdrawFee(address).tokenAddress (contracts/periphery/FeeProxy.sol#105) is not in mixedCase
Parameter FeeProxy.getDeBridgedId(uint256,bal).chainId (contracts/periphery/FeeProxy.sol#102) is not in mixedCase
Parameter FeeProxy.getDeBridgedId(uint256,bal).tokenAddress (contracts/periphery/FeeProxy.sol#102) is not in mixedCase
Parameter FeeProxy.getDeBridgedId(uint256,address).tokenAddress (contracts/periphery/FeeProxy.sol#218) is not in mixedCase
Parameter FeeProxy.toAddress(bytes)_byte (contracts/periphery/FeeProxy.sol#271) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-public-naming-conventions

FeeProxy.toAddress(bytes) (contracts/periphery/FeeProxy.sol#271-278) uses literals with too many digits:
  - result = mload(uint256)(bytes + 0x20) / 0x10000000000000000000000000000000
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#too-many-digits

PauseableUpgradeable._gap (node_modules/openzeppelin/contracts-upgradeable/access/PauseableUpgradeable.sol#97) is never used in FeeProxy (contracts/periphery/FeeProxy.sol#15-300)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-state-variable

grantRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.grantRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#139-141)
revokeRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.revokeRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#152-154)
renounceRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.renounceRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#176-174)
initialize(IUniswapV2Factory,IWETH) should be declared external:
  - FeeProxy.initialize(IUniswapV2Factory,IWETH) (contracts/periphery/FeeProxy.sol#66-78)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#public-function-that-could-be-declared-external

```

## contracts/periphery/SimpleFeeProxy.sol

```

SimpleFeeProxy._safeTransferETH(address,uint256) (contracts/periphery/SimpleFeeProxy.sol#125-128) sends eth to arbitrary user
  - Dangerous calls:
    - (success) = to.call.value: value)(bytes0) (contracts/periphery/SimpleFeeProxy.sol#126)
  Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#functions-that-send-ether-to-arbitrary-destinations

SimpleFeeProxy.initialize(IDeBridgeGate,address)_.treasury (contracts/periphery/SimpleFeeProxy.sol#48) lacks a zero-check on :
  - treasury = _treasury (contracts/periphery/SimpleFeeProxy.sol#48)
SimpleFeeProxy.setTreasury(address)_.treasury (contracts/periphery/SimpleFeeProxy.sol#60) lacks a zero-check on :
  - treasury = _treasury (contracts/periphery/SimpleFeeProxy.sol#60)
  Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#missing-zero-address-validation

AddressUpgradable.isContract(address) (node_modules/openzeppelin contracts-upgradeable/utils/AddressUpgradeable.sol#27-37) uses assembly
  - (success) = to.call.value: value)(bytes0) (contracts/periphery/SimpleFeeProxy.sol#126)
Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#functions-that-send-ether-to-arbitrary-destinations

SimpleFeeProxy.verifyCallResult(bytes1,bytes2,bytes3) (node_modules/openzeppelin contracts-upgradeable/utils/AddressUpgradeable.sol#181-189) uses assembly
  - INLINE ASM (node_modules/openzeppelin contracts-upgradeable/utils/AddressUpgradeable.sol#181-184)
  - INLINE ASM (node_modules/openzeppelin contracts-upgradeable/utils/AddressUpgradeable.sol#184-187)
  Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#assembly-usage

Different versions of Solidity are used:
  - Version 0.8.0 (contracts/periphery/SimpleFeeProxy.sol#6-7)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable access/AccesControlUpgradeable.sol#6)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable access/AccesControlUpgradeable.sol#14)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable proxy/utils/Initializable.sol#4)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable security/PausableUpgradeable.sol#4)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable security/PausableUpgradeable.sol#14)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20/utils/SafeERC20Upgradeable.sol#6)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20/utils/SafeERC20Upgradeable.sol#14)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20/utils/SafeERC20Upgradeable.sol#15)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20/utils/SafeERC20Upgradeable.sol#15-16)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#4)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable utils/introspection/ERC165Upgradeable.sol#4)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable utils/introspection/ERC165Upgradeable.sol#14)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable utils/introspection/ERC165Upgradeable.sol#15)
  - Version 0.8.0 (node_modules/openzeppelin contracts-upgradeable utils/introspection/ERC165Upgradeable.sol#15-16)
  Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#different-pragma-directives-are-used

AccessControlUpgradeable._AccessControl_init() (node_modules/openzeppelin contracts-upgradeable access/AccesControlUpgradeable.sol#51-55) is never used and should be removed
AccessControlUpgradeable.__AccessControl_init_.unchained() (node_modules/openzeppelin contracts-upgradeable access/AccesControlUpgradeable.sol#57-58) is never used and should be removed
AccessControlUpgradeable._setRoleAdmin(bytes32,bytes32) (node_modules/openzeppelin contracts-upgradeable access/AccesControlUpgradeable.sol#203-207) is never used and should be removed
AddressUpgradable.FunctionCallAddress(bytes) (node_modules/openzeppelin contracts-upgradeable/utils/AddressUpgradeable.sol#80-82) is never used and should be removed
AddressUpgradable.FunctionCallWithValueAddress(bytes,uint256) (node_modules/openzeppelin contracts-upgradeable/utils/AddressUpgradeable.sol#109-115) is never used and should be removed
AddressUpgradable.FunctionStaticCallAddress(bytes,string) (node_modules/openzeppelin contracts-upgradeable/utils/AddressUpgradeable.sol#152-161) is never used and should be removed
AddressUpgradable.sendValue(address,uint256) (node_modules/openzeppelin contracts-upgradeable/utils/AddressUpgradeable.sol#55-60) is never used and should be removed
ContextUpgradable._Context_init() (node_modules/openzeppelin contracts-upgradeable/utils/ContextUpgradeable.sol#18-20) is never used and should be removed
ContextUpgradable._msgData() (node_modules/openzeppelin contracts-upgradeable/utils/ContextUpgradeable.sol#28-30) is never used and should be removed
ContextUpgradable._msgData() (node_modules/openzeppelin contracts-upgradeable/utils/IntrospectionERC165Upgradeable.sol#28-30) is never used and should be removed
ERC165Upgradeable._ERC165_init_.unchained() (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#24-26) is never used and should be removed
ERC165Upgradeable._ERC165_init_.unchained() (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#28-29) is never used and should be removed
PausableUpgradeable._Pausable_init_.unchained() (node_modules/openzeppelin contracts-upgradeable security/PausableUpgradeable.sol#39-41) is never used and should be removed
SafeERC20Upgradeable._safeApprove(IErc20Upgradeable,address,uint256) (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#45-58) is never used and should be removed
SafeERC20Upgradeable._safeDecreaseAllowance(IErc20Upgradeable,address,uint256) (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#69-82) is never used and should be removed
SafeERC20Upgradeable._safeIncreaseAllowance(IErc20Upgradeable,address,uint256) (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#69-82) is never used and should be removed
SafeERC20Upgradeable._safeTransferFrom(IErc20Upgradeable,address,address,uint256) (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#29-36) is never used and should be removed
StringUpgradeable.toHexString(uint256) (node_modules/openzeppelin contracts-upgradeable/utils/StringUpgradeable.sol#40-51) is never used and should be removed
StringUpgradeable.toInt(string,uint256) (node_modules/openzeppelin contracts-upgradeable/utils/StringUpgradeable.sol#15-35) is never used and should be removed
  Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#dead-code

Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable access/AccesControlUpgradeable.sol#4) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable access/IAccessControlUpgradeable.sol#4) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable access/IAccessControlUpgradeable.sol#14) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable access/IAccessControlUpgradeable.sol#15) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#4) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#14) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-16) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-17) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-18) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-19) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-20) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-21) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-22) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-23) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-24) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-25) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-26) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-27) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-28) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-29) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-30) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-31) allows old versions
Pragma version^0.8.0 (node_modules/openzeppelin contracts-upgradeable token/ERC20Upgradeable.sol#15-32) allows old versions
  Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#dead-code

Low level call in AddressUpgradable.sendValue(address,uint256) (node_modules/openzeppelin contracts-upgradeable/utils/AddressUpgradeable.sol#55-60):
  - (success) = recipient.call.value: amount)(bytes0) (node_modules/openzeppelin contracts-upgradeable/utils/AddressUpgradeable.sol#58)
Low level call in AddressUpgradable.functionCallWithValue(address,bytes,uint256,string) (node_modules/openzeppelin contracts-upgradeable/utils/AddressUpgradeable.sol#123-134):
  - (success,returnData) = target.staticcall(data)(node_modules/openzeppelin contracts-upgradeable/utils/AddressUpgradeable.sol#123)
Low level call in SimpleFeeProxy._safeTransferETH(address,uint256) (node_modules/openzeppelin contracts-upgradeable access/AccessControlUpgradeable.sol#159):
  - (success) = to.call.value: value)(bytes0) (contracts/periphery/SimpleFeeProxy.sol#128)
  Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#low-level-calls

Function AccessControlUpgradeable._AccessControl_init() (node_modules/openzeppelin contracts-upgradeable access/AccesControlUpgradeable.sol#51-55) is not in mixedCase
Function AccessControlUpgradeable._AccessControl_init_.unchained() (node_modules/openzeppelin contracts-upgradeable access/AccesControlUpgradeable.sol#57-58) is not in mixedCase
Variable AccessControlUpgradeable._AccessControl_init_.unchained() (node_modules/openzeppelin contracts-upgradeable access/AccesControlUpgradeable.sol#52) is not in mixedCase
Function PausableUpgradeable._Pausable_init_.unchained() (node_modules/openzeppelin contracts-upgradeable security/PausableUpgradeable.sol#39-41) is not in mixedCase
Variable ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#4) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#14) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-16) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-17) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-18) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-19) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-20) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-21) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-22) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-23) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-24) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-25) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-26) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-27) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-28) is not in mixedCase
Function ContextUpgradeable._Context_init_.unchained() (node_modules/openzeppelin contracts-upgradeable ContextUpgradeable.sol#15-29) is not in mixedCase
Parameter SimpleFeeProxy.initialize(IDeBridgeGate,address)_.treasury (contracts/periphery/SimpleFeeProxy.sol#40) is not in mixedCase
Parameter SimpleFeeProxy.initialize(IDeBridgeGate,address)_.debridgeGate (contracts/periphery/SimpleFeeProxy.sol#40) is not in mixedCase
Parameter SimpleFeeProxy.setTreasury(address)_.treasury (contracts/periphery/SimpleFeeProxy.sol#60) is not in mixedCase
Parameter SimpleFeeProxy.withdrawFee(address)_.tokenAddress (contracts/periphery/SimpleFeeProxy.sol#66) is not in mixedCase
Parameter SimpleFeeProxy.withdrawFee(address)_.chainId (contracts/periphery/SimpleFeeProxy.sol#98) is not in mixedCase
Parameter SimpleFeeProxy.getDebridgeId(uint256,address)_.address (contracts/periphery/SimpleFeeProxy.sol#101) is not in mixedCase
Parameter SimpleFeeProxy.getDebridgeId(uint256,address)_.chainId (contracts/periphery/SimpleFeeProxy.sol#109) is not in mixedCase
Parameter SimpleFeeProxy.getDebridgeId(uint256,address)_.tokenAddress (contracts/periphery/SimpleFeeProxy.sol#109) is not in mixedCase
  Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#conflict-with-solIdity-naming-conventions

PausableUpgradeable._gap (node_modules/openzeppelin contracts-upgradeable security/PausableUpgradeable.sol#97) is never used in SimpleFeeProxy (contracts/periphery/SimpleFeeProxy.sol#12-135)
  Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#unused-state-variable

grantRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.grantRole(bytes32,address) (node_modules/openzeppelin contracts-upgradeable access/AccesControlUpgradeable.sol#139-141)
revokeRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.revokeRole(bytes32,address) (node_modules/openzeppelin contracts-upgradeable access/AccesControlUpgradeable.sol#152-154)
renounceRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.renounceRole(bytes32,address) (node_modules/openzeppelin contracts-upgradeable access/AccesControlUpgradeable.sol#170-174)
initialize(IDeBridgeGate,address) should be declared external:
  - SimpleFeeProxy.initialize(IDeBridgeGate,address) (contracts/periphery/SimpleFeeProxy.sol#40-44)
  Reference: https://github.com/crytic/solidity/wiki/Detector-Documentation#function-that-could-be-declared-external

```

## contracts/periphery/UpgradeableBeacon.sol

```

Address.isContract(address) (node_modules/openzeppelin/contracts/utils/Address.sol#27-37) uses assembly
  - INLINE ASM (node_modules/openzeppelin/contracts/utils/Address.sol#33-35)
Address.verifyCallResult(bool,bytes,string) (node_modules/openzeppelin/contracts/utils/Address.sol#196-216) uses assembly
  - INLINE ASM (node_modules/openzeppelin/contracts/utils/Address.sol#208-211)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Different version of Solidity are used:
  Version used: ('>0.8.0', '<=0.8.7')
    + 0.8.0 (node_modules/openzeppelin/contracts/access/AccessControl.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts/contracts/AccessControl.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts/proxy/beacon/IBeacon.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts/proxy/Proxy.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts/strings/Strings.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts/utils/introspection/IERC165.sol#4)
    + 0.8.0 (node_modules/openzeppelin/contracts/utils/introspection/IERC165.sol#4)
    + 0.8.7 (contracts/periphery/UpgradeableBeacon.sol#4)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#different-pragma-directives-are-used

AccessControl.setRoleAdmin(bytes32,bytes32) (node_modules/openzeppelin/contracts/access/AccessControl.sol#194-198) is never used and should be removed
Address.functionCall(address,bytes,uint256) (node_modules/openzeppelin/contracts/utils/Address.sol#80-82) is never used and should be removed
Address.functionCallWithValue(address,bytes,uint256) (node_modules/openzeppelin/contracts/utils/Address.sol#107-115) is never used and should be removed
Address.functionCallWithValue(address,bytes,uint256,string) (node_modules/openzeppelin/contracts/utils/Address.sol#123-134) is never used and should be removed
Address.functionCallAggregated(address,bytes,uint256) (node_modules/openzeppelin/contracts/utils/Address.sol#149-151) is never used and should be removed
Address.functionStaticCall(address,bytes,uint256) (node_modules/openzeppelin/contracts/utils/Address.sol#179-188) is never used and should be removed
Address.functionStaticCallAddress(bytes,string) (node_modules/openzeppelin/contracts/utils/Address.sol#142-144) is never used and should be removed
Address.functionStaticCallAddress(bytes,string) (node_modules/openzeppelin/contracts/utils/Address.sol#152-161) is never used and should be removed
Address.sendValue(address,uint256) (node_modules/openzeppelin/contracts/utils/Address.sol#95-98) is never used and should be removed
Address.transferValue(address,uint256) (node_modules/openzeppelin/contracts/utils/Address.sol#101-104) is never used and should be removed
Context.msgData() (node_modules/openzeppelin/Contracts/utils/Context.sol#21-23) is never used and should be removed
Strings.toHexString(uint256) (node_modules/openzeppelin/Contracts/utils/Strings.sol#40-51) is never used and should be removed
Strings.toString(uint256) (node_modules/openzeppelin/Contracts/utils/Strings.sol#15-36) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version'0.8.0' (node_modules/openzeppelin/contracts/access/AccessControl.sol#4) allows old versions
Pragma version'<0.8.0' (node_modules/openzeppelin/contracts/access/AccessControl.sol#4) allows old versions
Pragma version'0.8.0' (node_modules/openzeppelin/contracts/contracts/AccessControl.sol#4) allows old versions
Pragma version'<0.8.0' (node_modules/openzeppelin/contracts/AccessControl.sol#4) allows old versions
Pragma version'0.8.0' (node_modules/openzeppelin/contracts/proxy/beacon/IBeacon.sol#4) allows old versions
Pragma version'<0.8.0' (node_modules/openzeppelin/contracts/proxy/Proxy.sol#4) allows old versions
Pragma version'0.8.0' (node_modules/openzeppelin/contracts/strings/Strings.sol#4) allows old versions
Pragma version'<0.8.0' (node_modules/openzeppelin/contracts/utils/introspection/IERC165.sol#4) allows old versions
Pragma version'0.8.0' (node_modules/openzeppelin/contracts/utils/introspection/IERC165.sol#4) allows old versions
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#correct-versions-of-solidity

Low level call in Address.sendValue(address,uint256) (node_modules/openzeppelin/contracts/utils/Address.sol#55-60):
  - (success) = recipient.call.value(amount) (node_modules/openzeppelin/contracts/utils/Address.sol#58)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (node_modules/openzeppelin/contracts/utils/Address.sol#123-134):
  - (success,returnData) = target.call.value(value)(data) (node_modules/openzeppelin/contracts/utils/Address.sol#132)
Low level call in Address.functionCallAggregated(address,bytes,uint256) (node_modules/openzeppelin/contracts/utils/Address.sol#149-151):
  - (success,returnData) = target.staticcall(data) (node_modules/openzeppelin/contracts/utils/Address.sol#150)
Low level call in Address.functionStaticCall(address,bytes,uint256) (node_modules/openzeppelin/contracts/utils/Address.sol#179-188):
  - (success,returnData) = target.delegatedcall(data) (node_modules/openzeppelin/contracts/utils/Address.sol#186)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

Variable UpgradeableBeacon._implementation (contracts/periphery/UpgradeableBeacon.sol#17) is too similar to UpgradeableBeacon.constructor(address).implementation. (contracts/periphery/UpgradeableBeacon.sol#41)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#variable-names-are-too-similar

grantRole(bytes2,address) should be declared external:
  - AccessControl.grantRole(bytes2,address) (node_modules/openzeppelin/contracts/access/AccessControl.sol#138-132)
revokeRole(bytes2,address) should be declared external:
  - AccessControl.revokeRole(bytes2,address) (node_modules/openzeppelin/contracts/access/AccessControl.sol#143-146)
renounceRole(bytes2,address) should be declared external:
  - AccessControl.renounceRole(bytes2,address) (node_modules/openzeppelin/contracts/access/AccessControl.sol#161-165)
implementation() should be declared external:
  - UpgradeableBeacon._implementation() (contracts/periphery/UpgradeableBeacon.sol#49-51)
upgradeTo(address) should be declared external:
  - UpgradeableBeacon.upgradeTo(address) (contracts/periphery/UpgradeableBeacon.sol#63-66)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#public-function-that-could-be-declared-external

```

```

contracts/transfers/DeBridgeGate.sol
Reentrancy in DeBridgeGate._sendBytes(address,uint256,uint256,bool) (contracts/transfers/DeBridgeGate.sol#635-781)
External calls:
- _validateToken_(tokenAddress) (contracts/transfers/DeBridgeGate.sol#666)
  - (success) = token.callabi.encodeWithSignature("decimals()") (contracts/transfers/DeBridgeGate.sol#861)
    - (success, None) = token.callabi.encodeWithSignature("symbol()") (contracts/transfers/DeBridgeGate.sol#865)
- IERC20Permit(tokenAddress).permit(msg.sender,address(this),_amount,deadline,v,r) (contracts/transfers/DeBridgeGate.sol#654-665)
- weth.deposit(value:_amount) (contracts/transfers/DeBridgeGate.sol#763)
- _safeTransferFrom(msg.sender,address(this),_amount) (contracts/transfers/DeBridgeGate.sol#774)
  - (success) = token.callValue(value)(node bytes(0)) (contracts/transfers/DeBridgeGate.sol#965)
External calls sending eth:
- weth.deposit(value:_amount) (contracts/transfers/DeBridgeGate.sol#763)
- _safeTransferFrom(msg.sender,address(this),_amount) (contracts/transfers/DeBridgeGate.sol#774)
  - (success) = token.callValue(value)(node bytes(0)) (contracts/transfers/DeBridgeGate.sol#965)
State variables written after the calls:
- debridge.balance += amountAfterFee (contracts/transfers/DeBridgeGate.sol#774)
- debridge.balance -= amountAfterFee (contracts/transfers/DeBridgeGate.sol#774)
- gasUsed += gasUsedAfterFee (contracts/transfers/DeBridgeGate.sol#774)
- debridgeFee.collected += totalFee (contracts/transfers/DeBridgeGate.sol#763)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities

DeBridgeGate.normalizeTokenAmount(address,uint256) (contracts/transfers/DeBridgeGate.sol#897-1000) performs a multiplication on the result of a division:
- _amount = _amount / multiplier (multiplier (contracts/transfers/DeBridgeGate.sol#899))
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#divide-before-multiply

DeBridgeGate.send(address,uint256,int256,bytes,bytes,bytes,uint32,bytes) (contracts/transfers/DeBridgeGate.sol#229-279) uses a dangerous strict equality:
- autoParams.data.length > 0 && autoParams.fallbackAddress.length == 0 (contracts/transfers/DeBridgeGate.sol#261)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dangerous-strict-equalities

Reentrancy in DeBridgeGate.deployNewAsset(bytes,uint256,string,uint8,bytes) (contracts/transfers/DeBridgeGate.sol#343-364):
External calls:
- ISignatureVerifier(signatureVerifier).submit(deployId,_signatures,excessConfirmations) (contracts/transfers/DeBridgeGate.sol#358)
- debridge._addAsset(debridgeId,debridgeTokenAddress,_nativeTokenAddress,_nativeChainId) (contracts/transfers/DeBridgeGate.sol#363)
State variables written after the calls:
- debridge.exist = true (contracts/transfers/DeBridgeGate.sol#664)
- debridge.tokenAddress = _nativeTokenAddress (contracts/transfers/DeBridgeGate.sol#665)
- debridge.nativeChainId = _nativeChainId (contracts/transfers/DeBridgeGate.sol#666)
- debridge.maxAmount = type(uint256).max (contracts/transfers/DeBridgeGate.sol#669)
- debridge.minReservesBps = uint16(BPS_DENOMINATOR) (contracts/transfers/DeBridgeGate.sol#612)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities

DeBridgeGate.sendBytes(address,uint256,uint256,bytes,uint256,bytes,uint32,bytes,bytes,uint32,bytes) (contracts/transfers/DeBridgeGate.sol#721) is a local variable never initialized
DeBridgeGate.sendMessage(uint256,bytes,bytes,uint256,uint32) (contracts/transfers/DeBridgeGate.sol#218) is a local variable never initialized
DeBridgeGate.send(address,uint256,int256,bytes,bytes,bytes,uint32,bytes) (contracts/transfers/DeBridgeGate.sol#252) is a local variable never initialized
DeBridgeGate.claim(bytes32,uint256,uint256,address,autoParams) (contracts/transfers/DeBridgeGate.sol#293) is a local variable never initialized
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#uninitialized-local-variables

DeBridgeGate.setFeeContractUpdater(address) (contracts/transfers/DeBridgeGate.sol#488-498) should emit an event for:
- feeProxy = _feeProxy (contracts/transfers/DeBridgeGate.sol#489)
DeBridgeGate.setFeeProxy(address) (contracts/transfers/DeBridgeGate.sol#536-537) should emit an event for:
- feeProxy = _feeProxy (contracts/transfers/DeBridgeGate.sol#531)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-events-access-control

DeBridgeGate.initialize(uint32,IERC20) (contracts/transfers/DeBridgeGate.sol#164-173) should emit an event for:
- excessConfirmations = _excessConfirmations (contracts/transfers/DeBridgeGate.sol#166)
DeBridgeGate.updateExcessConfirmations(uint8) (contracts/transfers/DeBridgeGate.sol#428-431) should emit an event for:
- excessConfirmations = _excessConfirmations (contracts/transfers/DeBridgeGate.sol#430)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-events-arithmetic

DeBridgeGate.setCallProxy(address,_callProxy) (contracts/transfers/DeBridgeGate.sol#449) lacks a zero-check on :
- callProxy = _callProxy (contracts/transfers/DeBridgeGate.sol#449)
DeBridgeGate.setSignatureVerifier(SignatureVerifier) (contracts/transfers/DeBridgeGate.sol#476) lacks a zero-check on :
- signatureVerifier = _signatureVerifier (contracts/transfers/DeBridgeGate.sol#477)
DeBridgeGate.setDebridgeTokenDeployer(IAddress) (contracts/transfers/DeBridgeGate.sol#462) lacks a zero-check on :
- debridgeTokenDeployer = _debridgeTokenDeployer (contracts/transfers/DeBridgeGate.sol#463)
DeBridgeGate.setDebridgeTokenDeployer(IAddress) (contracts/transfers/DeBridgeGate.sol#483) lacks a zero-check on :
- debridgeTokenDeployer = _debridgeTokenDeployer (contracts/transfers/DeBridgeGate.sol#484)
- feeContractUpdater = _value (contracts/transfers/DeBridgeGate.sol#486)
DeBridgeGate.setFeeProxy(IAddress) (contracts/transfers/DeBridgeGate.sol#530) lacks a zero-check on :
- feeProxy = _feeProxy (contracts/transfers/DeBridgeGate.sol#531)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation
Reentrancy in DeBridgeGate._sendBytes(address,uint256,uint256,bool) (contracts/transfers/DeBridgeGate.sol#635-781):
External calls:
- _validateToken_(tokenAddress) (contracts/transfers/DeBridgeGate.sol#666)
  - (success) = token.callabi.encodeWithSignature("decimals()") (contracts/transfers/DeBridgeGate.sol#861)
    - (success, None) = token.callabi.encodeWithSignature("symbol()") (contracts/transfers/DeBridgeGate.sol#865)
- IERC20Permit(tokenAddress).permit(msg.sender,address(this),_amount,deadline,v,r) (contracts/transfers/DeBridgeGate.sol#654-665)
State variables written after the calls:
- _addAsset(debridgeId,assetAddress,abi.encodePacked(assetAddress),getChainId()) (contracts/transfers/DeBridgeGate.sol#688-693)
- debridge.assetAddress = assetAddress (contracts/transfers/DeBridgeGate.sol#684)
- _addAsset(debridgeId,assetAddress,abi.encodePacked(assetAddress),getChainId()) (contracts/transfers/DeBridgeGate.sol#688-693)
- debridge.exist = true (contracts/transfers/DeBridgeGate.sol#686)
- debridge.tokenAddress = _nativeTokenAddress (contracts/transfers/DeBridgeGate.sol#686)
- debridge.nativeChainId = _nativeChainId (contracts/transfers/DeBridgeGate.sol#686)
- debridge.maxAmount = type(uint256).max (contracts/transfers/DeBridgeGate.sol#689)
- debridge.minReservesBps = uint16(BPS_DENOMINATOR) (contracts/transfers/DeBridgeGate.sol#612)
- _addAsset(debridgeId,assetAddress,abi.encodePacked(assetAddress),getChainId()) (contracts/transfers/DeBridgeGate.sol#688-693)
- tokenInfo.nativeAddress = _nativeAddress (contracts/transfers/DeBridgeGate.sol#619)
Reentrancy in DeBridgeGate.deployNewAsset(bytes,uint256,int256,bytes,bytes,uint8,bytes) (contracts/transfers/DeBridgeGate.sol#343-364):
External calls:
- ISignatureVerifier(signatureVerifier).submit(deployId,_signatures,excessConfirmations) (contracts/transfers/DeBridgeGate.sol#358)
- debridgeTokenAddress = IDeBridgeTokenDeployer(debridgeTokenDeployer).deployAsset(debridgeId,_name,_symbol,_decimals) (contracts/transfers/DeBridgeGate.sol#360-361)
State variables written after the calls:
- _addAsset(debridgeId,debridgeTokenAddress,_nativeTokenAddress,_nativeChainId) (contracts/transfers/DeBridgeGate.sol#363)
- _tokenInfo.nativeAddress = _nativeAddress (contracts/transfers/DeBridgeGate.sol#618)
- _tokenInfo.nativeAddress = _nativeAddress (contracts/transfers/DeBridgeGate.sol#619)
Reentrancy in DeBridgeGate.sendMessage(uint256,bytes,bytes,uint256,uint32,bytes,bytes,uint32,bytes) (contracts/transfers/DeBridgeGate.sol#229-279):
External calls:
- (amountAfterFee,debridgeId,feeParam) = _send_permitEnvelope(_tokeAddress,_amount,_chainInfo,toUseAssetFee) (contracts/transfers/DeBridgeGate.sol#244-250)
  - returnData = address(token).functionCallData(SafeRC20.call_lowLevelCallFailed)(node_modules/openzeppelin/contracts-upgradeable/token/ERC20/utils/SafeERC20Upgradeable.sol#93)
    - (success) = token.callabi.encodeWithSignature("value()") (contracts/transfers/DeBridgeGate.sol#861)
    - (success) = token.callabi.encodeWithSignature("decimals()") (contracts/transfers/DeBridgeGate.sol#865)
    - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
    - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
  - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
  - (success) = weth.deposit(value:_amount) (contracts/transfers/DeBridgeGate.sol#783)
  - token.safeTransferFrom(msg.sender,address(this),_amount) (contracts/transfers/DeBridgeGate.sol#788)
  - IDeBridgeToken(debridgeTokenAddress).burn(_amountAfterFee) (contracts/transfers/DeBridgeGate.sol#778)
- (amountAfterFee,debridgeId,feeParam) = _send_permitEnvelope(_tokeAddress,_amount,_chainInfo,toUseAssetFee) (contracts/transfers/DeBridgeGate.sol#244-250)
  - (success) = to.callValue(value)(node bytes(0)) (contracts/transfers/DeBridgeGate.sol#965)
  - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
  - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
State variables written after the calls:
- _publishSubmission(debridgeId,chainInfoTo,_amountAfterFee,_receiver,feeParams,_referralCode,_autoParams,_autoParams.length > 0) (contracts/transfers/DeBridgeGate.sol#269-278)
External calls:
- (amountAfterFee,debridgeId,feeParam) = _send_permitEnvelope(_tokeAddress,_amount,_chainInfo,toUseAssetFee) (contracts/transfers/DeBridgeGate.sol#190-226)
  - returnData = address(token).functionCallData(SafeRC20.call_lowLevelCallFailed)(node_modules/openzeppelin/contracts-upgradeable/token/ERC20/utils/SafeERC20Upgradeable.sol#93)
    - (success) = token.callabi.encodeWithSignature("value()") (contracts/transfers/DeBridgeGate.sol#861)
    - (success) = token.callabi.encodeWithSignature("decimals()") (contracts/transfers/DeBridgeGate.sol#865)
    - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
    - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
  - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
  - (success) = weth.deposit(value:_amount) (contracts/transfers/DeBridgeGate.sol#783)
  - token.safeTransferFrom(msg.sender,address(this),_amount) (contracts/transfers/DeBridgeGate.sol#788)
  - IDeBridgeToken(debridgeTokenAddress).burn(_amountAfterFee) (contracts/transfers/DeBridgeGate.sol#778)
External calls sending eth:
- (amountAfterFee,debridgeId,feeParam) = _send_permitEnvelope(_tokeAddress,_amount,_chainInfo,toUseAssetFee) (contracts/transfers/DeBridgeGate.sol#202-208)
  - (success) = token.callValue(value)(node bytes(0)) (contracts/transfers/DeBridgeGate.sol#965)
  - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
  - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
  - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
  - (success) = token.callabi.encodeWithSignature("value()") (contracts/transfers/DeBridgeGate.sol#861)
  - (success) = token.callabi.encodeWithSignature("decimals()") (contracts/transfers/DeBridgeGate.sol#865)
  - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
  - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
  - (success,returnData) = target.callValue(value)(data) (node_modules/openzeppelin/contracts-upgradeable/utils/AddressUpgradeable.sol#132)
  - (success) = weth.deposit(value:_amount) (contracts/transfers/DeBridgeGate.sol#783)
  - token.safeTransferFrom(msg.sender,address(this),_amount) (contracts/transfers/DeBridgeGate.sol#788)
  - IDeBridgeToken(debridgeTokenAddress).burn(_amountAfterFee) (contracts/transfers/DeBridgeGate.sol#778)
State variables written after the calls:
- _publishSubmission(debridgeId,chainInfoTo,_targetContractAddress,feeParams,_referralCode,_autoParams,true) (contracts/transfers/DeBridgeGate.sol#216-226)
  - nonce ++ (contracts/transfers/DeBridgeGate.sol#844)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-2

Reentrancy in DeBridgeGate._claim(bytes32,uint256,int256,bytes,bytes,uint32,bytes) (contracts/transfers/DeBridgeGate.SubmissionAutoParamsFrom):
External calls:
```





# AUTOMATED TESTING

```

Variable ReentrancyGuardUpgradable_.gap (node_modules/openzeppelin/contracts-upgradeable/security/ReentrancyGuardUpgradable.sol#8) is not in mixedCase
Function ContextUpgradable_.Context_init() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#18-20) is not in mixedCase
Function ContextUpgradable_.Context_init.unchecked() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#22-23) is not in mixedCase
Variable ContextUpgradable_.gap (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#31) is not in mixedCase
Function ERC165Upgradeable_.ERC165_init() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#24-26) is not in mixedCase
Function ERC165Upgradeable_.ERC165_isInterface() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#27-29) is not in mixedCase
Variable ERC165Upgradeable_.gap (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#30) is not in mixedCase
Parameter Flags.getFlag(uint256,uint256)._packedFlags (contracts/libraries/Flags.sol#25) is not in mixedCase
Parameter Flags.getFlag(uint256,uint256)._flag (contracts/libraries/Flags.sol#26) is not in mixedCase
Parameter Flags.setFlag(uint256,uint256,bool)._flag (contracts/libraries/Flags.sol#38) is not in mixedCase
Parameter Flags.setFlag(uint256,uint256,bool)._value (contracts/libraries/Flags.sol#39) is not in mixedCase
Parameter SignatureUtil.getUnsignedMsg(bytes32)._submissionId (contracts/libraries/SignatureUtil.sol#13) is not in mixedCase
Parameter SignatureUtil.getUnsignedMsg(bytes32)._targetContractAddress (contracts/libraries/SignatureUtil.sol#14) is not in mixedCase
Parameter SignatureUtil.getUnsignedMsg(bytes32)._targetContractCallData (contracts/libraries/SignatureUtil.sol#15) is not in mixedCase
Parameter SignatureUtil.getUnsignedMsg(bytes32)._targetContractCallGasLimit (contracts/libraries/SignatureUtil.sol#16) is not in mixedCase
Parameter SignatureUtil.tolInt256(bytes,uint256)._bytes (contracts/libraries/SignatureUtil.sol#51) is not in mixedCase
Parameter SignatureUtil.tolInt256(bytes,uint256)._offset (contracts/libraries/SignatureUtil.sol#53) is not in mixedCase
Parameter SignatureUtil.tolInt256(bytes,uint256)._signatures (contracts/libraries/SignatureUtil.sol#52) is not in mixedCase
Parameter SignatureUtil.tolInt256(bytes,uint256)._value (contracts/libraries/SignatureUtil.sol#54) is not in mixedCase
Parameter DeBridgeDate.initialize(uint INETH) (contracts/transfers/DeBridgeDate.sol#16) is not in mixedCase
Parameter DeBridgeDate.sendMessage(uint256,bytes,_chainIdTo) (contracts/transfers/DeBridgeDate.sol#17) is not in mixedCase
Parameter DeBridgeDate.sendMessage(uint256,bytes,_targetContractAddress) (contracts/transfers/DeBridgeDate.sol#18) is not in mixedCase
Parameter DeBridgeDate.sendMessage(uint256,bytes,_targetContractCallData) (contracts/transfers/DeBridgeDate.sol#19) is not in mixedCase
Parameter DeBridgeDate.sendMessage(uint256,bytes,_targetContractCallGasLimit) (contracts/transfers/DeBridgeDate.sol#20) is not in mixedCase
Parameter DeBridgeDate.sendMessage(uint256,bytes,_chainIdTo,bytes,_referralCode) (contracts/transfers/DeBridgeDate.sol#192) is not in mixedCase
Parameter DeBridgeDate.sendMessage(uint256,bytes,_chainIdTo,bytes,_referralCode,bytes,_targetContractAddress) (contracts/transfers/DeBridgeDate.sol#193) is not in mixedCase
Parameter DeBridgeDate.sendMessage(uint256,bytes,_chainIdTo,bytes,_referralCode,bytes,_targetContractCallData) (contracts/transfers/DeBridgeDate.sol#194) is not in mixedCase
Parameter DeBridgeDate.sendMessage(uint256,bytes,_chainIdTo,bytes,_referralCode,bytes,_targetContractCallGasLimit) (contracts/transfers/DeBridgeDate.sol#195) is not in mixedCase
Parameter DeBridgeDate.sendMessage(uint256,bytes,_chainIdTo,bytes,_referralCode,bytes,_targetContractCallGasLimit,bytes,_value) (contracts/transfers/DeBridgeDate.sol#196) is not in mixedCase
Parameter DeBridgeDate.send(address,uint256,uint256,bytes,bits,_chainIdTo) (contracts/transfers/DeBridgeDate.sol#230) is not in mixedCase
Parameter DeBridgeDate.send(address,uint256,uint256,bytes,bits,bool,_chainIdTo) (contracts/transfers/DeBridgeDate.sol#231) is not in mixedCase
Parameter DeBridgeDate.send(address,uint256,uint256,bytes,bits,int32,_chainIdTo) (contracts/transfers/DeBridgeDate.sol#232) is not in mixedCase
Parameter DeBridgeDate.send(address,uint256,uint256,bytes,bits,int32,_chainIdTo,bytes,_receive) (contracts/transfers/DeBridgeDate.sol#233) is not in mixedCase
Parameter DeBridgeDate.send(address,uint256,uint256,bytes,bits,int32,_chainIdTo,bytes,_permitEnvelope) (contracts/transfers/DeBridgeDate.sol#234) is not in mixedCase
Parameter DeBridgeDate.send(address,uint256,uint256,bytes,bits,int32,_useAssetFee) (contracts/transfers/DeBridgeDate.sol#235) is not in mixedCase
Parameter DeBridgeDate.send(address,uint256,uint256,bytes,bits,int32,_useAssetFee,bytes,_referralCode) (contracts/transfers/DeBridgeDate.sol#236) is not in mixedCase
Parameter DeBridgeDate.send(address,uint256,uint256,bytes,bits,int32,_useAssetFee,bytes,_referralCode,bytes,_targetContractAddress) (contracts/transfers/DeBridgeDate.sol#237) is not in mixedCase
Parameter DeBridgeDate.claimBytes2232(uint256,uint256,address,uint256,bytes,bytes),_debridgedId (contracts/transfers/DeBridgeDate.sol#283) is not in mixedCase
Parameter DeBridgeDate.claimBytes32(uint256,uint256,address,uint256,bytes,bytes),_amount (contracts/transfers/DeBridgeDate.sol#284) is not in mixedCase
Parameter DeBridgeDate.claimBytes32(uint256,uint256,address,uint256,bytes,bytes),_chainIdTo (contracts/transfers/DeBridgeDate.sol#285) is not in mixedCase
Parameter DeBridgeDate.claimBytes32(uint256,uint256,address,uint256,bytes,bytes),_nonce (contracts/transfers/DeBridgeDate.sol#286) is not in mixedCase
Parameter DeBridgeDate.claimBytes32(uint256,uint256,address,uint256,bytes,bytes),_signatures (contracts/transfers/DeBridgeDate.sol#288) is not in mixedCase
Parameter DeBridgeDate.claimBytes32(uint256,uint256,address,uint256,bytes,bytes),_targetContractAddress (contracts/transfers/DeBridgeDate.sol#289) is not in mixedCase
Parameter DeBridgeDate.deployNewAsset(bytes,uint256,string,string,uint8),_nativeChainId (contracts/transfers/DeBridgeDate.sol#345) is not in mixedCase
Parameter DeBridgeDate.deployNewAsset(bytes,uint256,string,string,uint8),_name (contracts/transfers/DeBridgeDate.sol#346) is not in mixedCase
Parameter DeBridgeDate.deployNewAsset(bytes,uint256,string,string,uint8),_symbol (contracts/transfers/DeBridgeDate.sol#347) is not in mixedCase
Parameter DeBridgeDate.deployNewAsset(bytes,uint256,uint256,uint256),_assetId (contracts/transfers/DeBridgeDate.sol#348) is not in mixedCase
Parameter DeBridgeDate.deployNewAsset(bytes,uint256,uint256,uint256),_signatures (contracts/transfers/DeBridgeDate.sol#349) is not in mixedCase
Parameter DeBridgeDate.autoUpdateForNativeFee(uint256),_globalFixedNativeFee (contracts/transfers/DeBridgeDate.sol#360) is not in mixedCase
Parameter DeBridgeDate.updateChainSupport(uint256),_chainIdTo (contracts/transfers/DeBridgeDate.sol#362) is not in mixedCase
Parameter DeBridgeDate.updateChainSupport(uint256),_chainIdFrom (contracts/transfers/DeBridgeDate.sol#363) is not in mixedCase
Parameter DeBridgeDate.updateChainSupport(uint256),_chainIdFrom (contracts/transfers/DeBridgeDate.sol#364) is not in mixedCase
Parameter DeBridgeDate.updateGlobalFee(uint256,uint16),_globalFixedNativeFee (contracts/transfers/DeBridgeDate.sol#442) is not in mixedCase
Parameter DeBridgeDate.updateGlobalFee(uint256,uint16),_globalTransferFee (contracts/transfers/DeBridgeDate.sol#443) is not in mixedCase
Parameter DeBridgeDate.updateAssetFixedFee(bytes32,uint256,uint256),_assetFeeInfo (contracts/transfers/DeBridgeDate.sol#447) is not in mixedCase
Parameter DeBridgeDate.updateAssetFixedFee(bytes32,uint256,uint256),_assetFeeInfo (contracts/transfers/DeBridgeDate.sol#448) is not in mixedCase
Parameter DeBridgeDate.setChainSupport(uint256,bool,bool),_isSupported (contracts/transfers/DeBridgeDate.sol#457) is not in mixedCase
Parameter DeBridgeDate.setChainSupport(uint256,bool,bool),_isSupported (contracts/transfers/DeBridgeDate.sol#458) is not in mixedCase
Parameter DeBridgeDate.setChainProxy(address),_call1Proxy (contracts/transfers/DeBridgeDate.sol#459) is not in mixedCase
Parameter DeBridgeDate.updateAssetFee(uint256,uint256,uint256),_maxAmount (contracts/transfers/DeBridgeDate.sol#460) is not in mixedCase
Parameter DeBridgeDate.updateAssetFee(uint256,uint16,uint256),_minReserves (contracts/transfers/DeBridgeDate.sol#462) is not in mixedCase
Parameter DeBridgeDate.updateAssetFee(uint256,uint16,uint256),_minThreshold (contracts/transfers/DeBridgeDate.sol#463) is not in mixedCase
Parameter DeBridgeDate.setDeBridgeTokenDeploy(address),_debridgeTokenDeploy (contracts/transfers/DeBridgeDate.sol#468) is not in mixedCase
Parameter DeBridgeDate.setFeeContractUpdater(address),_value (contracts/transfers/DeBridgeDate.sol#468) is not in mixedCase
Parameter DeBridgeDate.setWethRate(IwethRate),_wethRate (contracts/transfers/DeBridgeDate.sol#494) is not in mixedCase
Parameter DeBridgeDate.setWethRate(IwethRate),_wethRate (contracts/transfers/DeBridgeDate.sol#495) is not in mixedCase
Parameter DeBridgeDate.blockSubmission(bytes32),_blockId, _submissionIds (contracts/transfers/DeBridgeDate.sol#537) is not in mixedCase
Parameter DeBridgeDate.updateFeeDiscount(address,int64,int64),_discountFee (contracts/transfers/DeBridgeDate.sol#553) is not in mixedCase
Parameter DeBridgeDate.getDeBridgeTokenDeploy(address),_debridgeTokenDeploy (contracts/transfers/DeBridgeDate.sol#555) is not in mixedCase
Parameter DeBridgeDate.getDeBridgeTokenDeploy(address),_debridgeTokenDeploy (contracts/transfers/DeBridgeDate.sol#556) is not in mixedCase
Parameter DeBridgeDate.getDeBridgeTokenDeploy(address),_debridgeTokenDeploy (contracts/transfers/DeBridgeDate.sol#557) is not in mixedCase
Parameter DeBridgeDate.getDeBridgeChainAssetsFixedFee(bytes32,uint256),_chainId (contracts/transfers/DeBridgeDate.sol#592) is not in mixedCase
Parameter DeBridgeDate.getDeBridgeChainAssetsFixedFee(bytes32,uint256),_debridgedId (contracts/transfers/DeBridgeDate.sol#593) is not in mixedCase
Parameter DeBridgeDate.getDeBridgeChainAssetsFixedFee(bytes32,uint256),_debridgedId (contracts/transfers/DeBridgeDate.sol#594) is not in mixedCase
Parameter DeBridgeDate.getSubmissionAutoParamsFrom(address),_chainIdFrom (contracts/transfers/DeBridgeDate.sol#598) is not in mixedCase
Parameter DeBridgeDate.getSubmissionAutoParamsFrom(address),_chainIdFrom (contracts/transfers/DeBridgeDate.sol#599) is not in mixedCase
Parameter DeBridgeDate.getSubmissionAutoParamsFrom(address),_chainIdFrom (contracts/transfers/DeBridgeDate.sol#600) is not in mixedCase
Parameter DeBridgeDate.getSubmissionAutoParamsFrom(address),_receiver (contracts/transfers/DeBridgeDate.sol#604) is not in mixedCase
Parameter DeBridgeDate.getSubmissionAutoParamsFrom(address),_nonce (contracts/transfers/DeBridgeDate.sol#605) is not in mixedCase
Parameter DeBridgeDate.getSubmissionAutoParamsFrom(address),_signature (contracts/transfers/DeBridgeDate.sol#606) is not in mixedCase
Parameter DeBridgeDate.getSubmissionAutoParamsFrom(address),_hasAutoParams (contracts/transfers/DeBridgeDate.sol#603) is not in mixedCase
Parameter DeBridgeDate.getSubmissionIdFrom(address),_chainId (contracts/transfers/DeBridgeDate.sol#604) is not in mixedCase
Parameter DeBridgeDate.getDeBridgePayId(bytes32,string,string,uint8),_debridgedId (contracts/transfers/DeBridgeDate.sol#1085) is not in mixedCase
Parameter DeBridgeDate.getDeBridgePayId(bytes32,string,string,uint8),_symbol (contracts/transfers/DeBridgeDate.sol#1086) is not in mixedCase
Parameter DeBridgeDate.getDeBridgePayId(bytes32,string,string,uint8),_decimals (contracts/transfers/DeBridgeDate.sol#1088) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-constant

ReentrancyGuardUpgradable_.gap (node_modules/openzeppelin/contracts-upgradeable/security/ReentrancyGuardUpgradable.sol#8) is never used in DeBridgeGate (contracts/transfers/DeBridgeGate.sol#25-1118)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-state-variable

DeBridgeGate.gap (contracts/transfers/DeBridgeGate.sol#65) should be constant
DeBridgeGate.gap (contracts/transfers/DeBridgeGate.sol#82) should be constant
DeBridgeGate.LockedClaim (contracts/transfers/DeBridgeGate.sol#161) should be constant
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-constant

grantRole(bytes32,address) should be declared external:
- AccessControlUpgradable.grantRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#139-141)
revokeRole(bytes32,address) should be declared external:
- AccessControlUpgradable.revokeRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#152-154)
renounceRole(bytes32,address) should be declared external:
- AccessControlUpgradable.renounceRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#170-174)
name() should be declared external:
- ERC20.name() (node_modules/openzeppelin/contracts/token/ERC20/ERC20.sol#62-64)
symbol() should be declared external:
- ERC20.symbol() (node_modules/openzeppelin/contracts/token/ERC20/ERC20.sol#78-72)
decimals() should be declared external:
- ERC20.decimals() (node_modules/openzeppelin/contracts/token/ERC20/ERC20.sol#97-99)
totalSupply() should be declared external:
- ERC20.totalSupply() (node_modules/openzeppelin/contracts/token/ERC20/ERC20.sol#94-96)
balanceOf(address) should be declared external:
- ERC20.balanceOf(address) (node_modules/openzeppelin/contracts/token/ERC20/ERC20.sol#101-103)
transferFrom(address,address,uint256) should be declared external:
- ERC20.transfer(address,uint256) (node_modules/openzeppelin/contracts/token/ERC20/ERC20.sol#115-116)
allowance(address,address) should be declared external:
- ERC20.allowance(address,address) (node_modules/openzeppelin/contracts/token/ERC20/ERC20.sol#121-123)
approve(address,uint256) should be declared external:
- ERC20.approve(address,uint256) (node_modules/openzeppelin/contracts/token/ERC20/ERC20.sol#132-135)
transferFrom(address,uint256) should be declared external:
- ERC20.decreaseAllowance(address,uint256) (node_modules/openzeppelin/contracts/token/ERC20/ERC20.sol#157-161)
increaseAllowance(address,uint256) should be declared external:
- ERC20.increaseAllowance(address,uint256) (node_modules/openzeppelin/contracts/token/ERC20/ERC20.sol#157-161)
decreaseAllowance(address,uint256) should be declared external:
- DeBridgeDate.initialize(uint8,INETH) (contracts/transfers/DeBridgeDate.sol#164-173)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#public-function-that-could-be-declared-external

```

[contracts/transfers/DeBridgeTokenDeployer.sol](https://github.com/crytic/slither/wiki/Detector-Documentation#contracts-transfers-DeBridgeTokenDeployer.sol)

```

ERC1967Upgrade._upgradeToAndCall(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#64-73) ignores return value by Address.functionDelegateCall(newImplementation,data) (node_.rude.sol#71)
ERC1967Upgrade._upgradeToAndCallSecure(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#88-108) ignores return value by Address.functionDelegateCall(newImplementation,data)
1967Upgrade.sol#109-118
ERC1967Upgrade._upgradeToAndCallSecure(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#88-108) ignores return value by Address.functionDelegateCall(newImplementation,abi.e) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#98-101)
ERC1967Upgrade._upgradeToAndCallSecure(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#183-193) ignores return value by Address.functionDelegateCall(IBeacon(newBeacon).imp.s/proxy/ERC1967/ERC1967Upgrade.sol#91)
Referenced: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-return

DeBridgeTokenDeployer.initialize(address,address) (contracts/transfers/DeBridgeTokenDeployer.sol#72-82) should emit an event for:
- DebridgeAddress = debridgeAddress (contracts/transfers/DeBridgeTokenDeployer.sol#77)
DeBridgeTokenDeployer._upgradeToAndCallSecure(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#168-171) should emit an event for:
- DebridgeAddress = debridgeAddress (contracts/transfers/DeBridgeTokenDeployer.sol#78)
Referenced: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-events-access-control

DeBridgeTokenDeployer.initialize(address,address), tokenImplementation (contracts/transfers/DeBridgeTokenDeployer.sol#73) lacks a zero-check on :
- tokenImplementation (contracts/transfers/DeBridgeTokenDeployer.sol#77)
DeBridgeTokenDeployer.initialize(address,address), _debridgeTokenAdmin (contracts/transfers/DeBridgeTokenDeployer.sol#74) lacks a zero-check on :
- _debridgeTokenAdmin = debridgeTokenAdmin (contracts/transfers/DeBridgeTokenDeployer.sol#78)
DeBridgeTokenDeployer.initialize(address,address), _debridgeAddress (contracts/transfers/DeBridgeTokenDeployer.sol#75) lacks a zero-check on :
- _debridgeAddress = debridgeAddress (contracts/transfers/DeBridgeTokenDeployer.sol#78)
Referenced: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

Reentrancy in ERC1967Upgrade._upgradeToAndCallSecure(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#88-108):
External call:
- Address.functionDelegateCall(newImplementation,data) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#98)
- Address.functionDelegateCall(newImplementation,abi.encodeWithSignature("upgradeToAddress(bytes)",id)) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#98-101)
Event emitted after the call:
- UpgradeToAddress(id) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#105)
- - upgradeToNewImplementation (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#106)
Referenced: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-3

DeBridgeToken.permit(address,uint256,uint256,uint8,bytes32) (contracts/periphery/DeBridgeToken.sol#110-142) uses timestamp for comparisons
Dangerous comparisons:
- require(bool,atting!deadline > block.timestamp,permit EXPIRED) (contracts/periphery/DeBridgeToken.sol#119)
Referenced: https://github.com/crytic/slither/wiki/Detector-Documentation#block-timestamp

Proxy._delegate(address) (node_modules/Openzeppelin/contracts/proxy/Proxy.sol#22-45) uses assembly
- INLINE ASM (node_modules/Openzeppelin/contracts/proxy/Proxy.sol#23-44)
Address.license() (node_modules/Openzeppelin/contracts/utils/Address.sol#33-37) uses assembly
- INLINE ASM (node_modules/Openzeppelin/contracts/utils/Address.sol#33-35)
Address.verifyCallResult(bool,bytes,string) (node_modules/Openzeppelin/contracts/utils/Address.sol#196-216) uses assembly
- INLINE ASM (node_modules/Openzeppelin/contracts/utils/Address.sol#208-211)
StorageSlot.getAddressSlot(bytes) (node_modules/Openzeppelin/contracts/utils/StorageSlot.sol#52-66) uses assembly
- INLINE ASM (node_modules/Openzeppelin/contracts/utils/StorageSlot.sol#52-55)
StorageSlot.getAddressSlot(bytes32) (node_modules/Openzeppelin/contracts/utils/StorageSlot.sol#61-65) uses assembly
- INLINE ASM (node_modules/Openzeppelin/contracts/utils/StorageSlot.sol#62-64)
StorageSlot.getByte32Slot(bytes) (node_modules/Openzeppelin/contracts/utils/StorageSlot.sol#70-74) uses assembly
- INLINE ASM (node_modules/Openzeppelin/contracts/utils/StorageSlot.sol#70-71)
StorageSlot.getUint256Slot(bytes32) (node_modules/Openzeppelin/contracts/utils/StorageSlot.sol#79-83) uses assembly
- INLINE ASM (node_modules/Openzeppelin/contracts/utils/StorageSlot.sol#80-82)
DeBridgeToken.initialize(string,uint8,address,addr) (contracts/periphery/DeBridgeToken.sol#54-98) uses assembly
- CONTRACT DELEGATECALL (node_modules/Openzeppelin/contracts/proxy/Proxy.sol#119-133)
DeBridgeTokenDeployer.deploy(bytes32,string,uint8) (contracts/transfers/DeBridgeTokenDeployer.sol#89-142) uses assembly
- INLINE ASM (contracts/transfers/DeBridgeTokenDeployer.sol#126-133)
Referenced: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Different version of Solidity are used:
- Version used: ['0.8.0', '0.8.2', '0.8.7']
- * 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/access/AccessControlUpgradable.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/contract-upgradeable/AccessControlUpgradable.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/contract-upgradeable/proxy/Initializable.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/security/PausableUpgradable.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradable.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20MetadataUpgradable.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/ContextUpgradable.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/ContextUpgradable.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/introspection/ERC165Upgradable.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/utils/Introspection.sol#4)
- * 0.8.2 (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts/proxy/Proxy.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts/proxy/Proxy.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts/proxy/Proxy.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts/utils/Address.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts/utils/Address.sol#4)
- * 0.8.0 (node_modules/Openzeppelin/contracts/interfaces/IDeBridgeTokenDeployer.sol#2)
- * 0.8.7 (contracts/interfaces/IERC20Permit.sol#3)
- * 0.8.7 (contracts/interfaces/DeBridgeToken.sol#2)
- * 0.8.7 (contracts/periphery/DeBridgeToken.sol#2)
- * 0.8.7 (contracts/transfers/DeBridgeTokenDeployer.sol#2)
Referenced: https://github.com/crytic/slither/wiki/Detector-Documentation#different-pragma-directives-are-used

AccessControlUpgradable._AccessControl_init() (node_modules/Openzeppelin/contracts-upgradeable/access/AccesControlUpgradable.sol#5-55) is never used and should be removed
AccessControlUpgradable._AccessControl_init_.unchained() (node_modules/Openzeppelin/contracts-upgradeable/access/AccesControlUpgradable.sol#57-58) is never used and should be removed
AccessControlUpgradable._setRoleAdmin(bytes32,address) (node_modules/Openzeppelin/contracts-upgradeable/access/AccesControlUpgradable.sol#203-207) is never used and should be removed
Address.functionCall(address,bytes) (node_modules/Openzeppelin/contracts/utils/Address.sol#8-82) is never used and should be removed
Address.functionCallWithValue(address,bytes,bytes) (node_modules/Openzeppelin/contracts/utils/Address.sol#93-96) is never used and should be removed
Address.functionCallWithValue(address,bytes,bytes,int) (node_modules/Openzeppelin/contracts/utils/Address.sol#101-105) is never used and should be removed
Address.functionCallWithValue(address,bytes,uint256,string) (node_modules/Openzeppelin/contracts/utils/Address.sol#123-134) is never used and should be removed
Address.functionStaticCall(address,bytes) (node_modules/Openzeppelin/contracts/utils/Address.sol#142-167) is never used and should be removed
Address.functionStaticCall(address,bytes,string) (node_modules/Openzeppelin/contracts/utils/Address.sol#142-167) is never used and should be removed
Address.functionStaticCall(address,bytes,int) (node_modules/Openzeppelin/contracts/utils/Address.sol#142-167) is never used and should be removed
BeaconProxy.beacon() (node_modules/Openzeppelin/contracts/proxy/BeaconProxy.sol#30-40) is never used and should be removed
BeaconProxy._getBeacon(address,bytes) (node_modules/Openzeppelin/contracts/proxy/BeaconProxy.sol#50-61) is never used and should be removed
ContextUpgradable._Context_init_1() (node_modules/Openzeppelin/contracts-upgradeable/context/ContextUpgradable.sol#19-20) is never used and should be removed
ContextUpgradable._Context_init_2() (node_modules/Openzeppelin/contracts-upgradeable/context/ContextUpgradable.sol#21-22) is never used and should be removed
ContextUpgradable._msgData() (node_modules/Openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#28-30) is never used and should be removed
ERC165Upgradable._ERC165_init_1() (node_modules/Openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#28-30) is never used and should be removed
ERC165Upgradable._ERC165_init_2() (node_modules/Openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#28-30) is never used and should be removed
ERC165Upgradable._ERC165_init_.unchained() (node_modules/Openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#28-30) is never used and should be removed
ERC165Upgradable._getInterfaceHash(bytes4) (node_modules/Openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#28-30) is never used and should be removed
ERC165Upgradable._getInterfaceHash(bytes4,int) (node_modules/Openzeppelin/contracts-upgradeable/utils/ContextUpgradable.sol#28-30) is never used and should be removed
ERC1967Upgrade._getAdminIn() (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#125-127) is never used and should be removed
ERC1967Upgrade._getImplementation() (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#37-39) is never used and should be removed
ERC1967Upgrade._setAdmin(address) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#135-138) is never used and should be removed
ERC1967Upgrade._setImplementation(bytes) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#141-144) is never used and should be removed
ERC1967Upgrade._upgradeToAndCall(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#164-171) is never used and should be removed
ERC1967Upgrade._upgradeToAndCallSecure(address,bytes,bool) (node_modules/Openzeppelin/contracts/proxy/ERC1967/ERC1967Upgrade.sol#168-169) is never used and should be removed
ERC20PausableUpgradable._ERC20Pausable_init_.unchained() (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradable.sol#24-25) is never used and should be removed
ERC20Upgradable._ERC20_init(string,int) (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#55-58) is never used and should be removed
PausableUpgradable._Pausable_init_1() (node_modules/Openzeppelin/contracts-upgradeable/security/PausableUpgradable.sol#37-37) is never used and should be removed
PausableUpgradable._Pausable_init_2() (node_modules/Openzeppelin/contracts-upgradeable/security/PausableUpgradable.sol#37-37) is never used and should be removed
StorageSlot.getPointerSlot(bytes32) (node_modules/Openzeppelin/contracts/utils/StorageSlot.sol#61-65) is never used and should be removed
StorageSlot.getBytes32Slot(bytes32) (node_modules/Openzeppelin/contracts/utils/StorageSlot.sol#70-74) is never used and should be removed
StorageSlot.getUint256Slot(bytes32) (node_modules/Openzeppelin/contracts/utils/StorageSlot.sol#79-83) is never used and should be removed
StorageSlot.getStringSlot(bytes32) (node_modules/Openzeppelin/contracts/utils/StorageSlot.sol#84-88) is never used and should be removed
StringStorageUpgradeable._stringStorageUpgradeable(bytes) (node_modules/Openzeppelin/contracts-upgradeable/utils/StringStorageUpgradeable.sol#5-51) is never used and should be removed
StringStorageUpgradeable._stringStorageUpgradeable(string) (node_modules/Openzeppelin/contracts-upgradeable/utils/StringStorageUpgradeable.sol#55-63) is never used and should be removed
Referenced: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code

Pragma version=0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/access/AccesControlUpgradable.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/access/IAccessControlUpgradable.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/abi/Initializable.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/security/PausableUpgradable.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradable.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradable.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20MetadataUpgradable.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/token/ERC20/introspection/ERC165Upgradable.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts-upgradeable/utils/Introspection.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts/interfaces/IBeaconProxy.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts/interfaces/IERC20Permit.sol#4) allows old versions
Pragma version=0.8.0 (node_modules/Openzeppelin/contracts/interfaces/IDeBridgeTokenDeployer.sol#4) allows old versions
Referenced: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Low level call in Address.setValue(address,uint256) (node_modules/Openzeppelin/contracts/utils/Address.sol#55-60):

```

# AUTOMATED TESTING

```
-- (success) = recipient.call{value: amount}() (node_modules/@openzeppelin/contracts/utils/Address.sol#8B)
Low level call in Address.functionCallWithValue(address,bytes,uint256,string) (node_modules/@openzeppelin/contracts/utils/Address.sol#123-134):
- (success,returnData) = target.call{value: amount}() (data) (node_modules/@openzeppelin/contracts/utils/Address.sol#132)
Low level call in Address.functionStaticCall(address,bytes,string) (node_modules/@openzeppelin/contracts/utils/Address.sol#179-188):
- (success,returnData) = target.delegatecall(data) (node_modules/@openzeppelin/contracts/utils/Address.sol#186)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#low-level-calls

DeBridgeTokenDeployer (contracts/transfers/DeBridgeTokenDeployer.sol#12-191) should inherit from IBeacon (node_modules/@openzeppelin/contracts/proxy/beacon/IBeacon.sol#9-16)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-inheritance

Function AccessControlUpgradeable._AccessControl_init() (node_modules/@openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#51-65) is not in mixedCase
Function AccessControlUpgradeable._AccessControl_init_unchained() (node_modules/@openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#57-68) is not in mixedCase
Variable AccessControlUpgradeable._gap (node_modules/@openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#232) is not in mixedCase
Function PausableUpgradeable._Pausable_init() (node_modules/@openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#34-37) is not in mixedCase
Function PausableUpgradeable._Pausable_init_unchained() (node_modules/@openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#39-41) is not in mixedCase
Variable PausableUpgradeable._gap (node_modules/@openzeppelin/contracts-upgradeable/security/PausableUpgradeable.sol#232) is not in mixedCase
Function ERC20Upgradeable._ERC20_init(string,string) (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#65-68) is not in mixedCase
Function ERC20Upgradeable._ERC20_init_unchained(string,string) (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#66-69) is not in mixedCase
Function ERC20Upgradeable._ERC20Pausable_init(string,string) (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20PausableUpgradeable.sol#18-22) is not in mixedCase
Variable ERC20Upgradeable._ERC20Pausable_init_unchained() (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20PausableUpgradeable.sol#32) is not in mixedCase
Function ERC20PausableUpgradeable._ERC20Pausable_init_unchained() (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20PausableUpgradeable.sol#24-25) is not in mixedCase
Variable ERC20PausableUpgradeable._gap (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20PausableUpgradeable.sol#18-20) is not in mixedCase
Function ContextUpgradeable._Context_init() (node_modules/@openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#18-20) is not in mixedCase
Function ContextUpgradeable._Context_init_unchained() (node_modules/@openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#18-20) is not in mixedCase
Variable ContextUpgradeable._gap (node_modules/@openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#18-22) is not in mixedCase
Function ERC165Upgradeable._ERC165_init() (node_modules/@openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#24-26) is not in mixedCase
Function ERC165Upgradeable._ERC165_init_unchained() (node_modules/@openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#24-26) is not in mixedCase
Variable ERC165Upgradeable._gap (node_modules/@openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#28-29) is not in mixedCase
Parameter DeBridgeToken.ninftAddress(uint256) (debridgeToken.sol#193) is not in mixedCase
Parameter DeBridgeToken.burn(uint256,_amount) (debridgeToken.sol#198) is not in mixedCase
Parameter DeBridgeToken.burnPermit(address,address,uint256,uint256,uint8,uint32,uint32) (debridgeToken.sol#112) -> (debridgeToken.sol#112) is not in mixedCase
Parameter DeBridgeToken.permit(address,address,uint256,uint256,uint8,uint32,uint32) (debridgeToken.sol#113) is not in mixedCase
Parameter DeBridgeToken.permit(address,address,uint256,uint256,uint8,uint32,uint32) (debridgeToken.sol#114) is not in mixedCase
Parameter DeBridgeToken.permit(address,address,uint256,uint256,uint8,uint32,uint32) (debridgeToken.sol#115) is not in mixedCase
Parameter DeBridgeToken.DOMAIN_SEPARATOR(contract/periphery/DeBridgeToken.sol#21) is not in mixedCase
Variable DeBridgeTokenProxy (debridgeTokenProxy.sol#29) is not in mixedCase
Parameter DeBridgeTokenDeployer.initialize(address,address) (debridgeTokenDeployer.sol#29) is not in mixedCase
Parameter DeBridgeTokenDeployer.initialize(address,address,address) (debridgeTokenDeployer.sol#74) is not in mixedCase
Parameter DeBridgeTokenDeployer.initialize(address,address,address) (debridgeTokenDeployer.sol#75) is not in mixedCase
Parameter DeBridgeTokenDeployer.deployAsset(bytes32,string,string,uint8,.debridgeAddress) (debridgeTokenDeployer.sol#9) is not in mixedCase
Parameter DeBridgeTokenDeployer.deployAsset(bytes32,string,string,uint8,.debridgeAddress) (debridgeTokenDeployer.sol#10) is not in mixedCase
Parameter DeBridgeTokenDeployer.deployAsset(bytes32,string,string,uint8,.debridgeAddress) (debridgeTokenDeployer.sol#11) is not in mixedCase
Parameter DeBridgeTokenDeployer.deployAsset(bytes32,.symbol) (debridgeTokenDeployer.sol#92) is not in mixedCase
Parameter DeBridgeTokenDeployer.deployAsset(bytes32,string,string,uint8,.decimals) (debridgeTokenDeployer.sol#93) is not in mixedCase
Parameter DeBridgeTokenDeployer.setTokenImplementation(bytes32,.implementation) (debridgeTokenDeployer.sol#154) is not in mixedCase
Parameter DeBridgeTokenDeployer.setTokenImplementation(bytes32,.implementation) (debridgeTokenDeployer.sol#155) is not in mixedCase
Parameter DeBridgeTokenDeployer.setDebridgeAddress(address,.debridgeAddress) (debridgeTokenDeployer.sol#168) is not in mixedCase
Parameter DeBridgeTokenDeployer.setOverrideTokenInfo(bytes32[],.DebridgeTokenDeployer.OverrideTokenInfo[]),.debridgeIds (debridgeTokenDeployer.sol#177) is not in mixedCase
Parameter DeBridgeTokenDeployer.setOverrideTokenInfo(bytes32[]),.tokens (debridgeTokenDeployer.OverrideTokenInfo.sol#178) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-new-conventions

DeBridgeTokenDeployer.deployAsset(bytes32,string,string,uint8) (debridgeTokenDeployer.sol#9-142) uses literals with too many digits:
- bytecode = abi.encodePacked(proxyCreationCode, constructorArgs) (debridgeTokenDeployer.sol#24)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#too-many-digits

ERC20PausableUpgradeable._gap (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/extensions/ERC20PausableUpgradeable.sol#42) is never used in DeBridgeToken (contract/periphery/DeBridgeToken.sol#10-16)
AccessControlUpgradeable._gap (node_modules/@openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#232) is never used in DeBridgeTokenDeployer (contracts/transfers/DeBridgeTokenDeployer.sol#12-191)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-state-variable

grantRole(bytes32,address) should be declared external:
- AccessControlUpgradeable.grantRole(bytes32,address) (node_modules/@openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#139-141)
revokeRole(bytes32,address) should be declared external:
- AccessControlUpgradeable.revokeRole(bytes32,address) (node_modules/@openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#152-154)
renounceRole(bytes32,address) should be declared external:
- AccessControlUpgradeable.renounceRole(bytes32,address) (node_modules/@openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#170-174)
name() should be declared external:
- ERC20Upgradeable.name() (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#68-70)
symbol() should be declared external:
- ERC20Upgradeable.symbol() (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#76-78)
decimals() should be declared external:
- ERC20Upgradeable.decimals() (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#145-147)
- ERC20Upgradeable.decimals() (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#93-95)
totalSupply() should be declared external:
- ERC20Upgradeable.totalSupply() (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#100-102)
balanceOf(address) should be declared external:
- ERC20Upgradeable.balanceOf(address) (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#107-109)
transfer(address,uint256) should be declared external:
- ERC20Upgradeable.transfer(address,uint256) (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#119-122)
allowance(address,address) should be declared external:
- ERC20Upgradeable.allowance(address,address) (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#127-129)
approve(address,uint256) should be declared external:
- ERC20Upgradeable.approve(address,uint256) (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#138-141)
transferFrom(address,address,uint256) should be declared external:
- ERC20Upgradeable.transferFrom(address,address,uint256) (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#156-170)
increaseAllowance(address,uint256) should be declared external:
- ERC20Upgradeable.increaseAllowance(address,uint256) (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#184-187)
decreaseAllowance(address,uint256) should be declared external:
- ERC20Upgradeable.decreaseAllowance(address,uint256) (node_modules/@openzeppelin/contracts-upgradeable/token/ERC20/ERC20Upgradeable.sol#203-211)
pause() should be declared external:
- DeBridgeToken.pause() (debridgeToken.sol#158-152)
unpause() should be declared external:
- DeBridgeToken.unpause() (debridgeToken.sol#155-157)
initialize(address,address,address) should be declared external:
- DeBridgeTokenDeployer.initialize(address,address,address) (debridgeTokenDeployer.sol#72-82)
implement() should be declared external:
- DeBridgeTokenDeployer.implement() (debridgeTokenDeployer.sol#145-147)
Implementation() should be declared external:
- DeBridgeTokenDeployer.Implementation() (debridgeTokenDeployer.sol#145-147)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#public-function-that-could-be-declared-external
```

## contracts/transfers/OraclesManager.sol

```
Different versions of Solidity are used:
  Version used: ('>0.6.0', '<=0.8.7')
    * 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#4)
    * 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#164)
    * 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#1)
    * 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#4)
    * 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/StringsUpgradeable.sol#4)
    * 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#4)
    * 0.8.7 (contracts/interfaces/IOraclesManager.sol#2)
    * 0.8.7 (contracts/transfers/OraclesManager.sol#2)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#different-pragma-directives-are-used

OraclesManager.addDracles(address[],bool[]) (contracts/transfers/OraclesManager.sol#82-105) has costly operations inside a loop:
  - requiredDraclesCount += 1 (contracts/transfers/OraclesManager.sol#96)
OraclesManager.updateDracle(address,bool)(contracts/transfers/OraclesManager.sol#111-143) has costly operations inside a loop:
  - oracleAddresses.pop() (contracts/transfers/OraclesManager.sol#132)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#costly-operations-inside-a-loop

AccessControlUpgradeable._AccessControl_init() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#55) is never used and should be removed
AccessControlUpgradeable._AccessControl_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#57-58) is never used and should be removed
AccessControlUpgradeable._setRoleAdmin(bytes32,bytes32) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#29-37) is never used and should be removed
AccessControlUpgradeable._Context_init() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#18-20) is never used and should be removed
ContextUpgradeable._Context_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#18-20) is never used and should be removed
ContextUpgradeable._ERC165_init() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#26-28) is never used and should be removed
ERC165Upgradeable._ERC165_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#26-28) is never used and should be removed
ERC165Upgradeable._StringUpgradeable_toString(uint256) (node_modules/openzeppelin/contracts-upgradeable/utils/StringUpgradeable.sol#35) is never used and should be removed
StringUpgradeable.toIntString(uint256) (node_modules/openzeppelin/contracts-upgradeable/utils/StringUpgradeable.sol#35) is never used and should be removed
StringUpgradeable.toHexString(uint256) (node_modules/openzeppelin/contracts-upgradeable/utils/StringUpgradeable.sol#35) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#costly-operations-inside-a-loop

Pragma version 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#4) allows old versions
Pragma version 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/proxy/utils/Initializable.sol#4) allows old versions
Pragma version 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#4) allows old versions
Pragma version 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#4) allows old versions
Pragma version 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#4) allows old versions
Pragma version 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/IERC165Upgradeable.sol#4) allows old versions
Pragma version 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/IERC165Upgradeable.sol#4) allows old versions
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#correct-versions-of-pragmas

Function AccessControlUpgradeable._AccessControl_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#51-55) is not in mixedCase
Variable AccessControlUpgradeable._AccessControl_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#57-58) is not in mixedCase
Function AccessControlUpgradeable._setRoleAdmin(bytes32,bytes32) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#29-32) is not in mixedCase
Function ContextUpgradeable._Context_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#22-23) is not in mixedCase
Variable ContextUpgradeable._gap (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#31) is not in mixedCase
Function ERC165Upgradeable._ERC165_init() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#24-26) is not in mixedCase
Function ERC165Upgradeable._StringUpgradeable_toString(uint256) (node_modules/openzeppelin/contracts-upgradeable/utils/StringUpgradeable.sol#35) is not in mixedCase
Variable ERC165Upgradeable._StringUpgradeable_toString(uint256) (node_modules/openzeppelin/contracts-upgradeable/utils/StringUpgradeable.sol#35) is not in mixedCase
Parameter OracleManager.initialize(uint8,uint8) _inConfirmation (contracts/transfers/OraclesManager.sol#50) is not in mixedCase
Parameter OracleManager.initialize(uint8,uint8)_inConfirmation (contracts/transfers/OraclesManager.sol#50) is not in mixedCase
Parameter OracleManager.setConfirmsConfigurations(uint8) _excessConfirmations (contracts/transfers/OraclesManager.sol#74) is not in mixedCase
Parameter OracleManager.addDracles(address[],bool) _oracles (contracts/transfers/OraclesManager.sol#83) is not in mixedCase
Parameter OracleManager.addDracles(address[],bool)_require (contracts/transfers/OraclesManager.sol#84) is not in mixedCase
Parameter OracleManager.addDracles(address[],bool)_require (contracts/transfers/OraclesManager.sol#84) is not in mixedCase
Parameter OracleManager.updateDracle(address,bool,_isValid) _isValid (contracts/transfers/OraclesManager.sol#113) is not in mixedCase
Parameter OracleManager.updateDracle(address,bool,_isValid) _isValid (contracts/transfers/OraclesManager.sol#114) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

AccessControlUpgradeable._gap (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#232) is never used in OraclesManager (contracts/transfers/OraclesManager.sol#10-144)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-state-variable

grantRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.grantRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#139-141)
revokeRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.revokeRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#152-154)
renounceRole(bytes32,address) should be declared external:
  - AccessControlUpgradeable.renounceRole(bytes32,address) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#170-174)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#public-function-that-could-be-declared-external
```

## contracts/transfers/SignatureVerifier.sol

```
SignatureVerifier.submit(bytes32,bytes,uint8) (contracts/transfers/SignatureVerifier.sol#50-51) uses a dangerous strict equality:
  - currentBlock == uint48(block.number) (contracts/transfers/SignatureVerifier.sol#108)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dangerous-strict-equalities

SignatureVerifier.submit(bytes32,bytes,uint8) confirmations (contracts/transfers/SignatureVerifier.sol#70) is a local variable never initialized
SignatureVerifier.submit(bytes32,bytes,uint8) currentRequiredOracleCount (contracts/transfers/SignatureVerifier.sol#68) is a local variable never initialized
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#uninitialized-local-variables

SignatureVerifier.initialize(uint8,uint8,address) _debridgAddress (contracts/transfers/SignatureVerifier.sol#45-54) should emit an event for:
  - debridgAddress = address(this) (contracts/transfers/SignatureVerifier.sol#45)
SignatureVerifier.setDebridgeAddress(address) (contracts/transfers/SignatureVerifier.sol#127-129) should emit an event for:
  - debridgeAddress = _debridgeAddress (contracts/transfers/SignatureVerifier.sol#128)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-events-access-control

SignatureVerifier.initialize(uint8,uint8,address) _debridgAddress (contracts/transfers/SignatureVerifier.sol#49) lacks a zero-check on :
  - debridgeAddress = _debridgeAddress (contracts/transfers/SignatureVerifier.sol#163)
SignatureVerifier.setDebridgeAddress(address) (contracts/transfers/SignatureVerifier.sol#127) lacks a zero-check on :
  - debridgeAddress = _debridgeAddress (contracts/transfers/SignatureVerifier.sol#128)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

SignatureUtil.parseSignatureBytes(uint256) (contracts/libraries/SignatureUtil.sol#32-49) uses assembly
  - INLINE ASM (contract/libraries/SignatureUtil.sol#41-45)
SignatureUtil.toJsnT256(bytes,uint256) (contracts/libraries/SignatureUtil.sol#51-61) uses assembly
  - INLINE ASM (contract/libraries/SignatureUtil.sol#56-60)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage

Different versions of Solidity are used:
  Version used: ('>0.8.0', '<=0.8.7')
    * 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#4)
    * 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#164)
    * 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#1)
    * 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#4)
    * 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/StringsUpgradeable.sol#4)
    * 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#4)
    * 0.8.7 (contracts/interfaces/IOracleVerifier.sol#2)
    * 0.8.7 (contracts/interfaces/ISignatureVerifier.sol#2)
    * 0.8.7 (contracts/interfaces/ISignatureVerifier.sol#2)
    * 0.8.7 (contracts/transfers/SignatureVerifier.sol#2)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#different-pragma-directives-are-used

OraclesManager.addDracles(address[],bool[]) (contracts/transfers/OraclesManager.sol#82-105) has costly operations inside a loop:
  - requiredDraclesCount += 1 (contracts/transfers/OraclesManager.sol#96)
OraclesManager.updateDracle(address,bool)(contracts/transfers/OraclesManager.sol#111-143) has costly operations inside a loop:
  - oracleAddresses.pop() (contracts/transfers/OraclesManager.sol#132)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#costly-operations-inside-a-loop

AccessControlUpgradeable._AccessControl_init() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#51-55) is never used and should be removed
AccessControlUpgradeable._AccessControl_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#57-58) is never used and should be removed
AccessControlUpgradeable._setRoleAdmin(bytes32,bytes32) (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#29-37) is never used and should be removed
ContextUpgradeable._Context_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#18-23) is never used and should be removed
ContextUpgradeable._ERC165_init() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#28-30) is never used and should be removed
ERC165Upgradeable._ERC165_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#28-30) is never used and should be removed
ERC165Upgradeable._StringUpgradeable_toString(uint256) (node_modules/openzeppelin/contracts-upgradeable/utils/StringUpgradeable.sol#35) is never used and should be removed
SignatureUtil.toIntString(uint256) (contracts/libraries/SignatureUtil.sol#51-61) is never used and should be removed
StringUpgradeable.toIntString(uint256) (node_modules/openzeppelin/contracts-upgradeable/utils/StringUpgradeable.sol#35) is never used and should be removed
StringUpgradeable.toHexString(uint256) (node_modules/openzeppelin/contracts-upgradeable/utils/StringUpgradeable.sol#35) is never used and should be removed
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#costly-operations-inside-a-loop

Pragma version >0.8.0 (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#4) allows old versions
Pragma version >0.8.0 (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#164) allows old versions
Pragma version 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/proxy/utils/Initializable.sol#4) allows old versions
Pragma version 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#4) allows old versions
Pragma version 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/StringsUpgradeable.sol#4) allows old versions
Pragma version 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#4) allows old versions
Pragma version 0.8.0 (node_modules/openzeppelin/contracts-upgradeable/utils/introspection/IERC165Upgradeable.sol#4) allows old versions
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#correct-versions-of-solidity

Function AccessControlUpgradeable._AccessControl_init() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#51-55) is not in mixedCase
Function AccessControlUpgradeable._AccessControl_init_unchained() (node_modules/openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#57-58) is not in mixedCase
```

```

Variable AccessControlUpgradeable._gap (node_modules/@openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#232) is not in mixedCase
Function ContextUpgradeable._Context_init () (node_modules/@openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#18-28) is not in mixedCase
Function ContextUpgradeable._Context_init_unchained () (node_modules/@openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#22-23) is not in mixedCase
Variable ContextUpgradeable._gap (node_modules/@openzeppelin/contracts-upgradeable/utils/ContextUpgradeable.sol#31) is not in mixedCase
Function ERC165Upgradeable._ERC165_init () (node_modules/@openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#28-29) is not in mixedCase
Variable ERC165Upgradeable._gap (node_modules/@openzeppelin/contracts-upgradeable/utils/introspection/ERC165Upgradeable.sol#36) is not in mixedCase
Parameter SignatureUtil.getUnsignedMsg(bytes32) (contracts/libraries/SignatureUtil.sol#13) is not in mixedCase
Parameter SignatureUtil.splitSignatureBytes(bytes32,bytes32) (contracts/libraries/SignatureUtil.sol#23) is not in mixedCase
Parameter SignatureUtil.toUInt256(bytes,uint256) (contracts/libraries/SignatureUtil.sol#25) is not in mixedCase
Parameter SignatureUtil.toUInt256(bytes,uint256)._offset (contracts/libraries/SignatureUtil.sol#51) is not in mixedCase
Parameter SignatureUtil.toUInt256(bytes,uint256)._offset_offset (contracts/libraries/SignatureUtil.sol#50) is not in mixedCase
Parameter OracleManager.initialize(uint8,address) (contracts/transfers/OraclesManager.sol#6) is not in mixedCase
Parameter OracleManager.setMinConfirmations(uint8) (contracts/transfers/OraclesManager.sol#67) is not in mixedCase
Parameter OracleManager.setOracleAddress(address) (contracts/transfers/OraclesManager.sol#74) is not in mixedCase
Parameter OracleManager.updateOracleAddress(bool,bool) (contracts/transfers/OraclesManager.sol#11) is not in mixedCase
Parameter OracleManager.updateOracleAddress(bool,bool)._oracle (contracts/transfers/OraclesManager.sol#12) is not in mixedCase
Parameter OracleManager.updateOracleAddress(bool,bool)._isValid (contracts/transfers/OraclesManager.sol#13) is not in mixedCase
Parameter OracleVerifier.initialize(uint8,uint8,uint8,address) (contracts/transfers/SignatureVerifier.sol#4) is not in mixedCase
Parameter OracleVerifier.setThreshold(uint8) (contracts/transfers/SignatureVerifier.sol#14) is not in mixedCase
Parameter OracleVerifier.setThreshold(uint8)._threshold (contracts/transfers/SignatureVerifier.sol#15) is not in mixedCase
Parameter OracleVerifier.setThreshold(uint8)._threshold_offset (contracts/transfers/SignatureVerifier.sol#16) is not in mixedCase
Parameter OracleVerifier.initialize(uint8,uint8,uint8,address)._confirmationThreshold (contracts/transfers/SignatureVerifier.sol#47) is not in mixedCase
Parameter OracleVerifier.initialize(uint8,uint8,uint8,address)._excessConfirmation (contracts/transfers/SignatureVerifier.sol#48) is not in mixedCase
Parameter OracleVerifier.initialize(uint8,uint8,uint8,address)._deridgeAddress (contracts/transfers/SignatureVerifier.sol#49) is not in mixedCase
Parameter OracleVerifier.initialize(uint8,uint8,uint8,address)._deridgeAddress_offset (contracts/transfers/SignatureVerifier.sol#50) is not in mixedCase
Parameter OracleVerifier.submit(bytes32,uint16) (contracts/transfers/SignatureVerifier.sol#60) is not in mixedCase
Parameter OracleVerifier.submit(bytes32,uint16)._signatures (contracts/transfers/SignatureVerifier.sol#61) is not in mixedCase
Parameter OracleVerifier.setThreshold(uint8) (contracts/transfers/SignatureVerifier.sol#65) is not in mixedCase
Parameter OracleVerifier.setThreshold(uint8)._threshold (contracts/transfers/SignatureVerifier.sol#66) is not in mixedCase
Parameter OracleVerifier.setThreshold(uint8)._threshold_offset (contracts/transfers/SignatureVerifier.sol#67) is not in mixedCase
Parameter OracleVerifier.setThreshold(uint8)._threshold_offset_offset (contracts/transfers/SignatureVerifier.sol#68) is not in mixedCase
Parameter OracleVerifier.isValidSignature(bytes2) (contracts/transfers/SignatureVerifier.sol#136) is not in mixedCase
Parameter OracleVerifier.isValidSignature(bytes2)._signature (contracts/transfers/SignatureVerifier.sol#136) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

AccessControlUpgradeable._gap (node_modules/@openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#232) is never used in SignatureVerifier (contracts/transfers/SignatureVerifier.sol#9-158)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-state-variable

grantRole(bytes2,address) should be declared external:
- AccessControlUpgradeable.grantRole(bytes2,address) (node_modules/@openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#139-141)
revokeRole(bytes2,address) should be declared external:
- AccessControlUpgradeable.revokeRole(bytes2,address) (node_modules/@openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#152-154)
renounceRole(bytes2,address) should be declared external:
- AccessControlUpgradeable.renounceRole(bytes2,address) (node_modules/@openzeppelin/contracts-upgradeable/access/AccessControlUpgradeable.sol#170-174)
initialize(uint8,uint8,uint8,address) should be declared external:
- SignatureVerifier.initialize(uint8,uint8,uint8,address)._threshold (contracts/transfers/SignatureVerifier.sol#45-54)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#public-function-that-could-be-declared-external

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-3

Low level call in WethGate._safeTransferETH(address,uint256) (contracts/transfers/WethGate.sol#31-35):
- (success) = _o.call(value:_value)(new bytes(0)) (contracts/transfers/WethGate.sol#38)
- (success) = _o.call(value:_value)(new bytes(0)) (contracts/transfers/WethGate.sol#38)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#functions-that-send-ether-to-arbitrary-destinations

Reentrancy in WethGate.withdraw(address,uint256) (contracts/transfers/WethGate.sol#31-35):
External call:
- weth.withdraw(wad) (contracts/transfers/WethGate.sol#32)
- _safeTransferETH(_receiver,wad) (contracts/transfers/WethGate.sol#33)
External call after the success:
- _safeTransferETH(_receiver,wad) (contracts/transfers/WethGate.sol#33)
- _safeTransferETH(_receiver,wad) (contracts/transfers/WethGate.sol#33)
- (success) = _o.call(value:_value)(new bytes(0)) (contracts/transfers/WethGate.sol#38)
Event emitted after the call:
- Withdrawal(_receiver,wad) (contracts/transfers/WethGate.sol#34)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#reentrancy-vulnerabilities-3

Parameter WethGate.withdraw(address,uint256)._receiver (contracts/transfers/WethGate.sol#33) is not in mixedCase
Parameter WethGate.withdraw(address,uint256)._wad (contract/transfers/WethGate.sol#33) is not in mixedCase
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

```

- As a result of the tests carried out with the Slither tool, some results were obtained and reviewed by Halborn. Based on the results reviewed, some vulnerabilities were determined to be false positives. The actual vulnerabilities found by Slither are already included in the report findings.

## 5.2 AUTOMATED SECURITY SCAN

### Description:

Halborn used automated security scanners to assist with detection of well-known security issues, and to identify low-hanging fruits on the targets for this engagement. Among the tools used was MythX, a security analysis service for Ethereum smart contracts. MythX performed a scan on all the contracts and sent the compiled results to the analyzers to locate any vulnerabilities.

### MythX results:

#### contracts/libraries/Flags.sol

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.

#### contracts/libraries/SignatureUtil.sol

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.

#### contracts/periphery/CallProxy.sol

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.

#### contracts/periphery/DeBridgeToken.sol

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.
119	(SWC-116) Timestamp Dependence	Low	A control flow decision is made based on The block.timestamp environment variable.

#### contracts/periphery/DeBridgeTokenPaused.sol

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.

#### contracts/periphery/DeBridgeTokenProxy.sol

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.

#### contracts/periphery/FeeProxy.sol

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.

#### contracts/periphery/FeesCalculator.sol

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.

#### contracts/periphery/SimpleFeeProxy.sol

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.

#### contracts/periphery/UpgradeableBeacon.sol

Line	SWC Title	Severity	Short Description
4	(SWC-103) Floating Pragma	Low	A floating pragma is set.

`contracts/transfers/DeBridgeGate.sol`

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.

`contracts/transfers/DeBridgeTokenDeployer.sol`

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.

`contracts/transfers/OraclesManager.sol`

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.

`contracts/transfers/SignatureVerifier.sol`

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.
100	(SWC-120) Weak Sources of Randomness from Chain Attributes	Low	Potential use of "block.number" as source of randomness.
103	(SWC-120) Weak Sources of Randomness from Chain Attributes	Low	Potential use of "block.number" as source of randomness.

`contracts/transfers/WethGate.sol`

Line	SWC Title	Severity	Short Description
2	(SWC-103) Floating Pragma	Low	A floating pragma is set.
32	(SWC-107) Reentrancy	Low	A call to a user-supplied address is executed.
38	(SWC-113) DoS with Failed Call	Low	Multiple calls are executed in the same transaction.
38	(SWC-105) Unprotected Ether Withdrawal	High	Any sender can withdraw Ether from the contract account.
38	(SWC-107) Reentrancy	Low	A call to a user-supplied address is executed.

- No major issues found by Mythx. The floating pragma flagged by MythX is a false positive, as the pragma is set in the `truffle-config.js` file to the `0.8.7` version.

THANK YOU FOR CHOOSING  
HALBORN