

#### Analysis 31243a98-e8cc-4f29-89f3-e8fa1e8f0243

MythX

Started Mon Oct 09 2023 07:20:58 GMT+0000 (Coordinated Universal Time)

Finished Mon Oct 09 2023 07:21:22 GMT+0000 (Coordinated Universal Time)

Mode Deep

Client Tool Mythx-Cli-0.7.3

Main Source File Contracts/AxelarReceiver.Sol

## **DETECTED VULNERABILITIES**

(HIGH (MEDIUM (LOW

0 0

### **ISSUES**

# UNKNOWN Arithmetic operation "++" discovered

This plugin produces issues to support false positive discovery within MythX.

SWC-101

Source file

 $node\_modules/@axelar-network/axelar-gmp-sdk-solidity/contracts/libs/AddressString.solidity/contracts/libs/$ 

```
if (stringBytes.length != 42 || stringBytes[0] != '0' || stringBytes[1] != 'x') revert InvalidAddressString();

for (uint256 i = 2; i < 42; ++i) {
    stringByte = uint8(stringBytes[i]);
```

## UNKNOWN Arithmetic operation "-=" discovered

This plugin produces issues to support false positive discovery within MythX.

SWC-101

Source file

```
stringByte = uint8(stringBytes[i]);

if ((stringByte >= 97) &6 (stringByte <= 102)) stringByte -= 87;

else if ((stringByte >= 65) &6 (stringByte <= 70)) stringByte -= 55;

else if ((stringByte >= 48) &6 (stringByte <= 57)) stringByte -= 48;
```

# UNKNOWN Arithmetic operation "-=" discovered

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SWC-101

Source file

 $node\_modules/@axelar-network/axelar-gmp-sdk-solidity/contracts/libs/AddressString.soll Locations$ 

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if ((stringByte >= 97) &8 (stringByte <= 102)) stringByte -= 87;

lese if ((stringByte >= 65) &8 (stringByte <= 70)) stringByte -= 55;

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else revert InvalidAddressString();
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### UNKNOWN Arithmetic operation "-=" discovered

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SWC-101

Source file

node\_modules/@axelar-network/axelar-gmp-sdk-solidity/contracts/libs/AddressString.sol

```
if ((stringByte >= 97) && (stringByte <= 102)) stringByte -= 87;

19  else if ((stringByte >= 65) && (stringByte <= 70)) stringByte -= 55;

20  else if ((stringByte >= 48) && (stringByte <= 57)) stringByte -= 48;

21  else revert InvalidAddressString();</pre>
```

## UNKNOWN Arithmetic operation "-" discovered

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SWC-101

Source file

```
21 else revert InvalidAddressString();
22 addressNumber |= uint160(uint256(stringByte) << ((41 - i) << 2));
24 }
```

# UNKNOWN Arithmetic operation "++" discovered

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SWC-101

Source file

 $node\_modules/@axelar-network/axelar-gmp-sdk-solidity/contracts/libs/AddressString.soll Locations$ 

### UNKNOWN Arithmetic operation "+" discovered

This plugin produces issues to support false positive discovery within MythX.

SWC-101

Source file

 $node\_modules/@axelar-network/axelar-gmp-sdk-solidity/contracts/libs/AddressString.sol...$ 

```
for (uint256 i; i < 20; ++i) {
    stringBytes[2 + i * 2] = characters[uint8(addressBytes[i] >> 4)];
    stringBytes[3 + i * 2] = characters[uint8(addressBytes[i] & 0x0f)];
}
```

## UNKNOWN Arithmetic operation "\*" discovered

This plugin produces issues to support false positive discovery within MythX.

SWC-101

Source file

```
for (uint256 i; i < 20; ++i) {
    stringBytes[2 + i * 2] = characters[uint8(addressBytes[i] >> 4)];
    stringBytes[3 + i * 2] = characters[uint8(addressBytes[i] & 0x0f)];
}
```

# UNKNOWN Arithmetic operation "+" discovered

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SWC-101

Source file

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```
for (uint256 i; i < 20; ++i) {

40    stringBytes[2 + i * 2] = characters[uint8(addressBytes[i] >> 4)];

41    stringBytes[3 + i * 2] = characters[uint8(addressBytes[i] & 0x0f)];

42  }
```

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stringBytes[2 + i * 2] = characters[uint8(addressBytes[i] >> 4)];

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}
```

#### UNKNOWN Out of bounds array access

The index access expression can cause an exception in case of use of invalid array index value.

SWC-110

Source file

 $node\_modules/@axelar-network/axelar-gmp-sdk-solidity/contracts/libs/AddressString.solidity/contracts/libs/$ 

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for (uint256 i = 2; i < 42; ++i) {

stringByte = uint8(stringBytes i );

if ((stringByte >= 97) 88 (stringByte <= 102)) stringByte -= 87;
```

## UNKNOWN Out of bounds array access

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SWC-110

Source file

```
bytes memory stringBytes = new bytes(42);

stringBytes(0) = '0';
stringBytes(1) = 'x';
```

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36    stringBytes[0] = '0';
37    stringBytes 1 = 'x';
38
39    for (uint256 i; i < 20; ++i) {</pre>
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for (uint256 i; i < 20; ++i) {
    stringBytes 2 + i * 2 = characters[uint8(addressBytes[i] >> 4)];
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Source file

 $node\_modules/@axelar-network/axelar-gmp-sdk-solidity/contracts/libs/AddressString.sollocations$ 

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for (uint256 i; i < 20; ++i) {

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41    stringBytes[3 + i * 2] = characters[uint8(addressBytes[i] & 0x0fi];

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for (uint256 i; i < 20; ++i) {

stringBytes[2 + i * 2] = characters[uint8(addressBytes[i] >> 4)];

stringBytes[3 + i * 2] = characters[uint8(addressBytes[i] & 0x0f)];

42
}
```