



EYWA

CLP

Smart Contract Audit Interim Report

Ver. 1.1

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Vulnerabilities found by type:

INFO	0
WARNING	1
WARNING	0
TOTAL:	1

1. AddressBook

Contract methods analysis:

bridge() returns(address)

Vulnerabilities not detected

setPortal(AddressBook.Record[]) returns()

Vulnerabilities not detected

setSynthesis(AddressBook.Record[]) returns()

Vulnerabilities not detected

setRouter(AddressBook.Record[]) returns()

Vulnerabilities not detected

setTreasury(address) returns()

Vulnerabilities not detected

setGateKeeper(address) returns()

Vulnerabilities not detected

setWhitelist(address) returns()

Vulnerabilities not detected

**_setRecords(mapping(uint64 => address),
AddressBook.Record[],AddressBook.RecordTypes) returns()**

Vulnerabilities not detected

**_emitEvent(address,uint64,AddressBook.RecordTypes)
returns()**

Vulnerabilities not detected

_checkAddress(address) returns()

Vulnerabilities not detected

2. BaseRouter

Contract methods analysis:

constructor(address) returns()

Vulnerabilities not detected

nonces(address) returns(uint256)

Vulnerabilities not detected

registerComplexOp(BaseRouter.ComplexOp[]) returns()

Vulnerabilities not detected

setAddressBook(address) returns()

Vulnerabilities not detected

pause() returns()

Vulnerabilities not detected

unpause() returns()

Vulnerabilities not detected

_start(string[],bytes[],IRouterParams.Invoice) returns()

Vulnerabilities not detected

_resume(bytes32,uint8,string[],bytes[]) returns()

Vulnerabilities not detected

**_execute(uint256,string[],bytes[])
returns(bytes32,uint64,BaseRouter.ExecutionResult,uint8)**

Vulnerabilities not detected

_getAndUpdateNonce(address) returns(uint256)

Vulnerabilities not detected

**_checkSignature(address,bytes32,bytes,
IRouterParams.Invoice) returns(address)**

Vulnerabilities not detected

_getRawData(string[],bytes[]) returns(bytes32,bytes)

Vulnerabilities not detected

_getRequestId(address,uint64) returns(bytes32)

Vulnerabilities not detected

_proceedFees(uint256,address) returns()

Vulnerabilities not detected


```
_executeOp(bool,bytes32,bytes32,bytes,  
BaseRouter.MaskedParams)  
returns(uint64,bytes,BaseRouter.MaskedParams,  
BaseRouter.ExecutionResult)
```

Vulnerabilities not detected

3. RouterV2

Contract methods analysis:

constructor(address) returns()	
Vulnerabilities not detected	
receive() returns()	
Vulnerabilities not detected	
receiveValidatedData(bytes4,address,uint64) returns(bool)	
Vulnerabilities not detected	
start(string[],bytes[],IRouterParams.Invoice) returns()	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, public

```
resume(bytes32,uint8,string[],bytes[]) returns()
```

Vulnerabilities not detected

```
_executeOp(bool,bytes32,bytes32,bytes,  
BaseRouter.MaskedParams)  
returns(uint64,bytes,BaseRouter.MaskedParams,  
BaseRouter.ExecutionResult)
```

Vulnerabilities not detected

```
_lock(IRouterParams.SynthParams) returns()
```

Vulnerabilities not detected

```
_unlock(IRouterParams.SynthParams) returns(uint256)
```

Vulnerabilities not detected

```
_emergencyUnlock(IRouterParams.SynthParams)  
returns(uint256)
```

Vulnerabilities not detected

```
_mint(IRouterParams.SynthParams) returns(uint256)
```

Vulnerabilities not detected

```
_emergencyMint(IRouterParams.SynthParams) returns(uint256)
```

Vulnerabilities not detected

```
_wrap(IRouterParams.WrapParams) returns(uint256)
```

Vulnerabilities not detected

```
_unwrap(IRouterParams.WrapParams) returns(uint256)
```

Vulnerabilities not detected

_proceedFees(uint256,address) returns()

Vulnerabilities not detected

**_checkMaskedParams(uint256,address,address,
BaseRouter.MaskedParams) returns(uint256,address,address)**

Vulnerabilities not detected

_checkTo(address,address,uint64,bytes32) returns(address)

Vulnerabilities not detected

4. SynthesisV2

Contract methods analysis:

constructor(address) returns()

Vulnerabilities not detected

setAddressBook(address) returns()

Vulnerabilities not detected

setCap(address,uint256) returns()

Vulnerabilities not detected

getSynth(uint64,address) returns(address)

Vulnerabilities not detected

```
mint(address,uint256,address,address,uint64)  
returns(uint256)
```

Vulnerabilities not detected

```
emergencyMint(address,uint256,address,address)  
returns(uint256)
```

Vulnerabilities not detected

```
burn(address,uint256,address,address,uint64) returns()
```

Vulnerabilities not detected

```
setSynths(address[]) returns()
```

Vulnerabilities not detected

```
_setSynth(address) returns()
```

Vulnerabilities not detected

5. ThirdPartySynthAdapter

Contract methods analysis:

```
constructor(address,address,uint64,string,uint8) returns()
```

Vulnerabilities not detected

```
setCap(uint256) returns()
```

Vulnerabilities not detected

```
mint(address,uint256) returns()
```

Vulnerabilities not detected

```
burn(address,uint256) returns()
```

Vulnerabilities not detected

6. UnifiedRouterV2

Contract methods analysis:

constructor(address) returns()

Vulnerabilities not detected

setPoolAdapter(address,address) returns()

Vulnerabilities not detected

**_executeOp(bool,bytes32,bytes32,bytes,
BaseRouter.MaskedParams)
returns(uint64,bytes,BaseRouter.MaskedParams,
BaseRouter.ExecutionResult)**

Vulnerabilities not detected

_checkTo(address,address,uint64,bytes32) returns(address)

Vulnerabilities not detected

_getPoolAdapter(address) returns(address)

Vulnerabilities not detected

**_transferToAdapter(address,address,address,uint256)
returns()**

Vulnerabilities not detected

7. adapters/crypto1/PoolAdapterCrypto

Contract methods analysis:

constructor(address,uint8) returns()
Vulnerabilities not detected

<code>addLiquidity(address,uint256,address,address,uint256, uint8,address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

<code>swap(address,uint256,address,address,uint256,uint8,uint8, address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

```
removeLiquidity(address,uint256,address,address,uint256,  
uint8,address) returns(uint256)
```

Vulnerabilities not detected

TOKEN FLOW

Tokens in, tokens out, public

8. adapters/crypto2/PoolAdapterCrypto

Contract methods analysis:

constructor(address) returns()
Vulnerabilities not detected

<code>addLiquidity(address,uint256,address,address,uint256, uint8,address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

<code>swap(address,uint256,address,address,uint256,uint8,uint8, address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

```
removeLiquidity(address,uint256,address,address,uint256,  
uint8,address) returns(uint256)
```

Vulnerabilities not detected

TOKEN FLOW

Tokens in, tokens out, public

9. adapters/meta1/PoolAdapter.sol

Contract methods analysis:

constructor(uint8) returns()
Vulnerabilities not detected

<code>addLiquidity(address,uint256,address,address,uint256, uint8,address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

<code>swap(address,uint256,address,address,uint256,uint8,uint8, address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

```
removeLiquidity(address,uint256,address,address,uint256,  
uint8,address) returns(uint256)
```

Vulnerabilities not detected

TOKEN FLOW

Tokens in, tokens out, public

10. adapters/stable1/PoolAdapter

Contract methods analysis:

<code>constructor(address, uint8) returns()</code>
Vulnerabilities not detected

<code>addLiquidity(address,uint256,address,address,uint256, uint8,address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

<code>swap(address,uint256,address,address,uint256,uint8,uint8, address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

```
removeLiquidity(address,uint256,address,address,uint256,  
uint8,address) returns(uint256)
```

Vulnerabilities not detected

TOKEN FLOW

Tokens in, tokens out, public

11. adapters/stable2/PoolAdapter

Contract methods analysis:

constructor(uint8) returns()
Vulnerabilities not detected

<code>addLiquidity(address,uint256,address,address,uint256, uint8,address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

<code>swap(address,uint256,address,address,uint256,uint8,uint8, address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

```
removeLiquidity(address,uint256,address,address,uint256,  
uint8,address) returns(uint256)
```

Vulnerabilities not detected

TOKEN FLOW

Tokens in, tokens out, public

12. adapters/stable3/PoolAdapterAave

Contract methods analysis:

constructor(uint8) returns()
Vulnerabilities not detected

<code>addLiquidity(address,uint256,address,address,uint256, uint8,address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

<code>swap(address,uint256,address,address,uint256,uint8,uint8, address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

```
removeLiquidity(address,uint256,address,address,uint256,  
uint8,address) returns(uint256)
```

Vulnerabilities not detected

TOKEN FLOW

Tokens in, tokens out, public

13. adapters/stable4/PoolAdapterStableNg

Contract methods analysis:

<code>addLiquidity(address,uint256,address,address,uint256,uint8,address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

<code>swap(address,uint256,address,address,uint256,uint8,uint8,address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

<code>removeLiquidity(address,uint256,address,address,uint256,uint8,address) returns(uint256)</code>	
Vulnerabilities not detected	
TOKEN FLOW	Tokens in, tokens out, public

14. VirtualPriceReceiver

Contract methods analysis:

constructor(address,uint64[],address[]) returns()

Vulnerabilities not detected

receiveValidatedData(bytes4,address,uint64) returns(bool)

Vulnerabilities not detected

setAddressBook(address) returns()

Vulnerabilities not detected

setVirtualPriceSender(uint64,address) returns()

Vulnerabilities not detected

receiveVirtualPrice(uint256,uint256) returns()

Vulnerabilities not detected

getVirtualPriceEth() returns(uint256)

Vulnerabilities not detected

getVirtualPriceArb() returns(uint256)

Vulnerabilities not detected

getVirtualPriceBsc() returns(uint256)

Vulnerabilities not detected

getVirtualPricePol() returns(uint256)

Vulnerabilities not detected

getVirtualPriceAvax() returns(uint256)

Vulnerabilities not detected

getVirtualPriceOpt() returns(uint256)

Vulnerabilities not detected

15. VirtualPriceSender

Contract methods analysis:

constructor(address) returns()

Vulnerabilities not detected

setAddressBook(address) returns()

Vulnerabilities not detected

setReceiver(address, uint64, address) returns()

Vulnerabilities not detected

sendVirtualPrice(address, uint64) returns()

Vulnerabilities not detected

```
sendVirtualPrice(address[], uint64[]) returns()
```

Vulnerabilities not detected

ACKNOWLEDGED

WARNING

```
_sendVirtualPrice(address, uint64) returns()
```

Acknowledged: tx can be sandwiched, thus resulting in incorrect virtualPrice.

Verification checksums

Contract name	Bytecode hash(SHA-256)
AddressBook	a955ee64cd37eae0d3c591f94295f6d7b419 6a40c8146587be6f1bf7f12799c4
BaseRouter	664c4db353f84c9a90b542256a7c8db877b b3478cbc770e9873b71f2a6e8c06c
RouterV2	5fd8da0024c3aeddcc1296fb874a841b14605 ea53b83cd663a7a2c91d9a91c63f
SynthesisV2	6bc455b00f144c85f6a9df9e1f38f7c764936 6b058695e7cf34104d797d9357a
ThirdPartySynthAdapter	dd77a214bea69f01b8e8b66ad2e870d0d5a 01394cb16275c6ea65bef407192df
UnifiedRouterV2	eb3f55b3387ca443707921256b7df8b5cbfc c36bbb1c23255648d479c486e9d0
adapters/crypto1/ PoolAdapterCrypto	df41ba0aabb26afbc69640f2408f56c82658 2f1035f046c1c4fc3adcbc41ccd1

Contract name	Bytecode hash (SHA-256)
adapters/crypto2/ PoolAdapterCrypto	336bca3de04f2e1ea6d98c9071ddfa9bb5b 0b8aedef8eefaeaf093241210f6417
adapters/meta1/ PoolAdapter.sol	fc6be076245427f968486e508453c20697f 568594d726e588fd2391d4fb7446d
adapters/stable1/ PoolAdapter	8403e0ce202bee95488ded4471e82d7125a 2209b12e7355b0db2372c108fccae
adapters/stable2/ PoolAdapter	71a17f1744c43501f859cc2747e41f98a8cd0d 9b4a2df27420eb2852a1f75bc7
adapters/stable3/ PoolAdapterAave	6708fe32370527b7d42c937950f8578eb4ff 9eca691cfe2dd8ccabe3a508c20e
adapters/stable4/ PoolAdapterStableNg	1901b527f0450a5f402d277b0c4e5a07e828 2641c644b3f9b16946e59cef902d
VirtualPriceReceiver	055d969dd65429262ab429a93b7bb0630d 117ba4fb87b71fb92e89e8b37e381a
VirtualPriceSender	d1ed799f2b46d486011d763aa83d558fd1d6 3afeeab9dd8b25e480f5f45b3935