| <> Code ⊙ Issues   | s 45 🐧 Pull requ                              | ests 39       | Actions          | Projects        | ☐ Wiki         | ! Security     | <u>~</u> 1 |
|--------------------|---|---------------|------------------|-----------------|----------------|----------------|------------|
|                    |   |               |                  |                 |                |                |            |
| <> Code ▼          |   |               |                  |                 |                | Jump to k      | oottom     |
| v1.2.0 Escrov      | Mc #253                                       |               |                  |                 |                |                |            |
| VI.Z.U LSCIU       | W <b>3</b> #233                               |               |                  |                 |                |                |            |
| Merged thegost     | tep merged 59 commits                         | sinto maste   | er from steph/   | bay 🖵 on Nov 2  | 23, 2019       |                |            |
|                    |   |               |                  |                 |                |                |            |
| Conversation 33    | Commits 59                                    | Checks 0      | Files char       | nged 149        |                |                |            |
| thegostep com      | mented on Nov 5, 2019                         | • edited •    |                  |                 |                | Contribu       | tor        |
| Done               |   |               |                  |                 |                |                |            |
| Done               |   |               |                  |                 |                |                |            |
| get rid of agreem  | ent metadata                                  |               |                  |                 |                |                |            |
| events to distingu | uish each function                            |               |                  |                 |                |                |            |
| check if better wa | ay to pass in agreemen                        | tFactory      |                  |                 |                |                |            |
| check if possible  | to avoid agreementPar                         | ams           |                  |                 |                |                |            |
| check if possible  | to have roles module                          |               |                  |                 |                |                |            |
| create new depos   | sit module to remove pa                       | aymentAmo     | ount and stakeAi | mount (may nee  | d to be coup   | led with role) |            |
| rename status fu   | nctions at lower level to                     | clarify eth   | erscan ABI and i | inheritance     |                |                |            |
| check for current  | t stake breaks if seller =                    | = buyer       |                  |                 |                |                |            |
| should agreemen    | nt inherit operator from                      | escrow?       |                  |                 |                |                |            |
| add state machin   | ne  |               |                  |                 |                |                |            |
| gas benchmarks     |   |               |                  |                 |                |                |            |
| use explicit retur |   |               |                  |                 |                |                |            |
| · ·                | rry 🕙 MultiHashWrapp                          |               |                  |                 | oe libraries # | <b>‡</b> 281   |            |
|                    | The function get                              |               |                  | #276            |                |                |            |
| ✓ solc 0.5.13 < Th | e latest version of Soli                      | dity should   | l be used #270   |                 |                |                |            |
| WIP                |   |               |                  |                 |                |                |            |
| add distinction be | etween new and depred                         | cated to rele | eases            |                 |                |                |            |
| complete natspe    | c module commenting                           |               |                  |                 |                |                |            |
| documentation o    | n use of registries, fact                     | ories and te  | emplates         |                 |                |                |            |
| Contract descrip   | tions • Contract-level                        | introducti    | ons are missing  | #263            |                |                |            |
|                    | nes to github (https://g<br>downGriefing.png) | ithub.com/e   | erasureprotocol/ | erasure-protoco | ol/blob/v1.2.0 | /docs/state-   |            |
| Abandoned          |   |               |                  |                 |                |                |            |
| generalize escro   | w execution and move f                        | unctionality  | to a module      |                 |                |                |            |
| _ goneranze escrov | CACCULION UNA INOVE I                         | anotionant)   | , to a module    |                 |                |                |            |



- 🗴 🔼 erasureprotocol deleted a comment from harsh103 on Nov 6, 2019
- × **erasureprotocol** deleted a comment from harsh103 on Nov 6, 2019
- thegostep added 6 commits 4 years ago

| -0- | Scrow WIP                 | 57e1c75 |
|-----|---------------------------|---------|
| -0- | add events                | 2d061bb |
| -0- | optimizations and natspec | 93c92e9 |
| -0- | fix tests                 | 7534005 |
| -0- | fix tests                 | 182a1ea |

-o- fix typo cf9348c

thegostep force-pushed the steph/bay branch from 785a4b7 to cf9348c 4 years ago

Compare

thegostep added 4 commits 4 years ago

-O- deploy rinkeby test 98d6bc3

-O- 🌎 initial tests and optimizations ede263e

-O- 👘 tests WIP f4ebcc1

jparyani reviewed on Nov 9, 2019

View reviewed changes

| contracts/escrows/CountdownGriefingEscrow.sol Outdated | • Show resolved |
|--|-----------------|
| contracts/escrows/CountdownGriefingEscrow.sol Outdated | Show resolved   |
| contracts/escrows/CountdownGriefingEscrow.sol          | Show resolved   |
| contracts/escrows/CountdownGriefingEscrow.sol          | Show resolved   |
| contracts/escrows/CountdownGriefingEscrow.sol          | Show resolved   |

| contracts/escro | ws/CountdownGriefingEscrow.sol Outdated | ÷ Show resolved               |
|-----------------|---|-------------------------------|
| contracts/escro | ws/CountdownGriefingEscrow.sol Outdated | ÷ Show resolved               |
| contracts/escro | ws/CountdownGriefingEscrow.sol Outdated | \$\tau_{\tau}\$ Show resolved |
| contracts/escro | ws/CountdownGriefingEscrow.sol Outdated | ÷ Show resolved               |
| contracts/escro | ws/CountdownGriefingEscrow.sol          | Show resolved                 |

## thegostep added 7 commits 4 years ago

| -0- | complete happy | tests |  |  |  | 6288 | 55a |
|-----|----------------|-------|--|--|--|------|-----|
|-----|----------------|-------|--|--|--|------|-----|

- -O- 👣 fix state machine bugs 50df9d5
- -O- add state machine diagram b7027aa
- -O- of refactor staking module 0d01fc5
- -O- 👣 fix typos 769d36c
- -O- fix countdown status visibility d27d13a
- -O- add contract titles bc8845c
- 💿 🌎 thegostep requested a review from jparyani 4 years ago
- o jparyani reviewed on Nov 12, 2019

View reviewed changes

contracts/escrows/CountdownGriefingEscrow.sol Outdated

jparyani reviewed on Nov 12, 2019

View reviewed changes

#### thegostep added 6 commits 4 years ago

-o- 💮 update rinkeby deployment 7856c56

-O- of fix finalize require de34e9c

-0- 😭 update metadata access control 77d1fd3

-O- remove unused imports 9297f74

-O- add state machines 2db2b51

7 hidden items

Load more...

• fulldecent suggested changes on Nov 19, 2019

update countdown griefing state machine

View reviewed changes



fulldecent left a comment • edited ▼

Contributor

fd580fb

# 2019-11-18 Erasure Bay Contract Review

Erasure Bay Contract Review William Entriken
Delivered 2019-11-18

# Review scope

This is a review of Erasure Protocol, pre-release version 1.2.0. Code as published at https://github.com/erasureprotocol/erasure-protocol, commit 4a3d98c.

The scope of review included code-level review (human reading source code), automated code review, (compute reading source code), unit testing (computer running small-scope tests), and a limited amount of functional testing (human using compiled program).

The review was performed for the purpose of comparing Erasure Protocol to the advertised specifications (documentation) and understood use cases (product README, product introduction, architecture explanation, private application specification, private conversations with team). Any deviation from this standard, or deficiency against relevant best programming practices would be an in-scope review finding.

#### **Review exclusions**

The following code was excluded from review:

/contracts-wip folder

Additionally, certain items were excluded from review:

- Suitability and security of cryptographic primitives (ECDSA, Fernet.js, etc.)
- Other library dependencies
- Downstream SDK modules

# **Findings**

Each finding is listed as a bullet item and is organized by topic. Critical findings that are not resolved are marked with the bomb symbol ( ) and other unresolved material findings are marked with the warning symbol ( ). Resolved and less-than-material findings have no emoji marking.

## Design

All findings are Just from reading the user documentation.

- Use of multihash adds complexity and the decision is not explicitly justified Use of multihash adds complexity and the decision is not explicitly justified #258
- Posts and feeds are not differentiated Posts and feeds are not differentiated #259
- Files should be encrypted offline and uploaded online https://docs.google.com/document/d/1XN4gXOA9VgkX7f80qwmlJDSm-iKWzAq-e5E4VeqCaFg/edit? disco=AAAADgDoZXA
- Documentation shows posts as "unlisted" which is not appropriate https://docs.google.com/document/d/1XN4gXOA9VgkX7f80qwmlJDSm-iKWzAq-e5E4VeqCaFg/edit? disco=AAAADgDoZXU
- Design specifications should use prescriptive language https://docs.google.com/document/d/1XN4gXOA9VgkX7f80qwmlJDSm-iKWzAq-e5E4VeqCaFg/edit? disco=AAAADgDoZXc

#### **Documentation**

- Griefing specification is unclear and/or incorrect Griefing specification is unclear and/or incorrect #260
- Is there one "protocol" or many? ✓ Is there one "protocol" or many? #262
- Contract-level introductions are missing Ocontract-level introductions are missing #263
- Occumentation identifies the wrong party as paying money O Documentation identifies the wrong party as paying money #264
- A state diagram could be helpful https://docs.google.com/document/d/1XN4gXOA9VgkX7f80qwmlJDSm-iKWzAq-e5E4VeqCaFg/edit?disco=AAAADgDoZXs
- Documentation shows that information is available to only certain parties, but actually it is public https://docs.google.com/document/d/1XN4gXOA9VgkX7f80qwmlJDSm-iKWzAq-e5E4VeqCaFg/edit? disco=AAAADgDoZX8

#### **Specifications**

These are from reading just the developer documentation.

- proofHash is underspecified, in regards to prepending proofHash is underspecified #265
- Some of the API surface is unnecessary and/or duplicative Some of the API surface is unnecessary and/or duplicative #266

#### Word choice

The choice of words is scrutinized here.

Use of "counterparty" is confusing Use of "counterparty" is confusing #267

## Testing / assurance

These relate to included test cases.

- CountdownGriefingEscrow.js test fails O CountdownGriefingEscrow.js test fails #268

#### Build

These relate to the build system, not necessarily code.

- Test scripts exit with success code when build fails Test scripts exit with success code when build fails #271
- Solidity linter is missing from test suite Solidity linter is missing from test suite #272
- Third-party code is not attributed Third-party code is not attributed #273

#### **Implementation**

These are from reviewing the actual code and program output.

- Implementation of multihash is not future proof Implementation of multihash is not future proof #274
- Implementation of multihash does not adhere to its documentation Implementation of multihash does not adhere to its documentation #275
- Fig. 12 The function getPunishment is inaccurate The function getPunishment is inaccurate #276
- onlyPayloadSize should not be necessary with Solidity 0.5 onlyPayloadSize should not be necessary with Solidity 0.5 #277
- Factory uses bytes4 to track instanceTypes, this is unjustifiably restrictive Factory uses bytes4 to track instanceTypes, this is unjustifiably restrictive #278
- Inconsistent type usage: countdownLength, ratio 🕑 🚣 Inconsistent type usage: countdownLength, ratio #279

#### Implementation — leaking storage

These are situations where the terminal state of a contract uses more storage than necessary.

Enumeration status do not use zero for final state Enumeration status do not use zero for final state #280

### Code style and quality

These are sniffs not directly related to implementation functionality.

- MultiHashWrapper and Spawner are more appropriate to be libraries MultiHashWrapper and Spawner are more appropriate to be libraries #281
- Purpose of Operated. \_status is unclear Purpose of Operated. \_status is unclear #283
- isCreator can be removed from API surface 
   isCreator can be removed from API surface #285
- All test contracts should have Test in their name All test contracts should have Test in their name #286
- Functions with similar arguments should have similar argument order Functions with similar arguments should have similar argument order #287
- Same-contract variable is accessed using internal scoping 
  Same-contract variable is accessed using internal scoping #288
- Uses of address types can be more specific Uses of address types can be more specific #290
- TODO is present in code TODO is present in code #291
- Variety of approaches is used for restricting actor for permission checking Variety of approaches is used for restricting actor for permission checking #292

#### **Code documentation**

These relate to communicating to other developers on the project.

- 🚣 Mint / burn should be explained clearly 📀 🚣 Mint / burn should be explained clearly #293
- 🗘 submitHash does NOT accept multihashes 📀 🗘 submitHash does NOT accept multihashes #294

#### **Unused code**

These are implementation details which have no effect on the product.

## **Quick fixes**

These are all pull requests against the steph/bay branch.

- fix-remove-wip-contracts % Fix remove wip contracts #297
- fix-whitespace % Fix doubled whitespace #298
- fix-prescriptive-hashing Be prescriptive in hashing introduction #299

- fix-countdown-griefing-build & Fix test for countdown griefing #300
- fix-erc-20-approve % Clarify the meaning of "approve" for staking #301
- fix-wording % Fix wording #302

# Other notes

• I love the bracket blocks to scope out variable assignments (in finalize()). This is very c-like, very readable!



#### 2 hidden items

Load more...

|     | fulldecent and others added 23 commits 4 years ago  |         |
|-----|---|---------|
| -0- | Be prescriptive in hashing introduction             | 3674009 |
| -0- | Fix test for countdown griefing                     | 98c6d2a |
| -0- | Clarify the meaning of "approve" for staking        | bfc30f2 |
| -0- | Spelling and wording updates                        | 8062a46 |
| -0- | clarify griefing docs fixes #260                    | 1923453 |
| -0- | clarify use of NMR in escrow fixes #261             | ee33618 |
| -0- | clarify single protocol fixes #262                  | 889172b |
| -0- | <pre>update approval documentation fixes #264</pre> | 491d057 |
| -0- | remove unused contracts fixes #296                  | 77504c1 |
| -0- | remove TODO fixes #291                              | a99ff0f |
| -0- | deprecate Post fixes #259                           | 8d2fbb7 |
| -0- | use SHA-256 for proofhash fixes #258                | 0d59cb4 |
| -0- | remove build artifacts fixes #269                   | 1866d77 |
| -0- | remove deployment from CI                           | 1905758 |
| -0- | fix testenv   | d47e4f0 |
| -0- | clarify burn behavior fixes #293                    | 22f3d11 |
| -0- | move MockNMR fixes #289                             | aa248c1 |
| -0- | clean func reference fix #288 fix #285 fix #266     | ef607af |

| 5/31/23, 2 | 2:26 PM v1.2.0 Escrows by                | thegostep · Pull Request #253 · erasureprotocol/erasure-protocol |               |
|------------|--|--|---------------|
| -0-        | make consistent argument order fix #287  |  | 8e72eac       |
| -0-        | remove unused contract fix #286          |  | c9f4110       |
| -0-        | simplify operated module fix #283        |  | 63d3d68       |
| -0-        | explicit ratioType fix #282              |  | 3b4f97c       |
| -0-        | fix travis build                         |  | a62d801       |
| •          | jgeary reviewed on Nov 22, 2019          |  |               |
|            | View reviewed changes                    |  |               |
|            | contracts/modules/Countdown.sol          |  | Show resolved |
|            | thegostep added 5 commits 4 years ago    |  |               |
| -0-        | <pre>update solc to 0.5.13</pre>         |  | 8ecfe27       |
| -0-        | clarify getPunishment fix #276           |  | 0f963d8       |
| -0-        | <pre>update deployment script</pre>      |  | 5326057       |
| -0-        | nost state machines on github            |  | 929eeff       |
| -0-        | <pre>update contract headers WIP</pre>   |  | 7323709       |
|            | thegostep merged commit 6a28933 into mas | ter on Nov 23, 2019  | Revert        |
| Revie      | ewers                                    |  |               |
| ii 🔐       | paryani                                  |  | $\Box$        |
| (E) ję     | geary                                    |  | $\Box$        |
| s f        | ulldecent                                |  | <u>±</u>      |
| Assig      | gnees                                    |  |               |
| No or      | ne assigned                              |  |               |
| Labe       | ls                                       |  |               |
| None       | yet                                      |  |               |
| Proje      | ects                                     |  |               |

#### Milestone

None yet

No milestone

#### Development

Successfully merging this pull request may close these issues.

None yet

## 4 participants







