2020-06-02 Meeting notes

Date
26 Feb 2020

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Call Details

Join from PC, Mac, Linux, iOS or Android: https://zoom.us/my/hyperledger.community.backup

Or iPhone one-tap :
US: +16465588656,4034983298# or +16699006833,4034983298#
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Dial(for higher quality, dial a number based on your current location):
US: +1 646 558 8656 or +1 669 900 6833 or +1 855 880 1246 (Toll Free) or +1 877 369 0926 (Toll Free)
Meeting ID: 403 498 3298
International numbers available: https://zoom.us/u/bAaJoyznp

Attendees

• David Fuelling
• George Roman
• Ian Simpson
• Neil Hartner
• Noah Kramer

Agenda

1. Introductions
2. Discuss open Quilt issues & PRs
   a. Release 1.3.0
      i. Improve PaymentPointer parsing (#441)
      ii. Add Denomination to send money result (#442)
      iii. Send Correct Sender Address in STREAM Payment (fixes #445)
      iv. Fix Array allocation in STREAM sender (#446)
      v. Support standard NIST-recommended AuthTag ByteOrdering in STREAM Encryption Service (#447)
      vi. Clarify Length-prefix contract (#448)
      vii. Make ConnectionNewAddress Frame's address optional (#459)
      viii. Add typeData field to InterledgerPacket (#461)
      ix. Send stream close frame when all is said and done on a send money request (#464)
   b. Discuss STREAM sender improvements found in https://github.com/interledger-rs/interledger-rs/pull/635 and task this out.
   c. Discuss & Prioritize 1.4 release items (https://github.com/hyperledger/quilt/projects/9)
3. Q&A, misc issues

Goals

• Stakeholder sync-up
## Discussion items

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| 1min  | Intros                        | All          | - George working to integrate iroha and Quilt.  
- Lurii Vinogradov  
- Kincaid, Neil, Noah, Ian, David: Working on ILP in Java and JS.                                                                                                      |
| 10min | Iroha and Quilt               |              | - Iroha is a private permissioned blockchain.  
- Iroha is in C++; Good permission model; lightweight, easy to deploy; use on mobile.  
- No smart contract -  
- Many Private networks all running same code. Intended for private enterprise blockchains (20-30 projects).  
- CBDC in Cambodia (Bakank)  
- Looking to connect/bridge different iroha networks.  
- Focused on financial transactions.                                                                                                                                  |
| 2min  | Release 1.3.0                 | David Fuelling|                                                                                   |
| 45min | Discuss STREAM sender         | All          | - Kincaid  
- Sender wallet presents some max-amount that will leave your account.  
- StreamSender needs to enforce that this max is the most that leaves the account.  
- Question: Does the lower-level sender need knowledge around how much its delivering?  
- JS StreamController interface: break sender up into as many little state machines as possible (max packets; liquidity congestion; setting the amount and tracking amount paid; pacing).  
- Neil  
- Durability is aimed at knowing the state of any given stream payment.  
- We could go back and retry. Or we could just do another payment.  
- How do we get a fixed amount in receiver’s units where things like FX or slippage could be unknown until the sender gets it.  
- What should STREAMSender do if the FX rate goes against the sender and the payment cannot be completed?  
- Kincaid: FX rates are that big of a deal because they don’t fluctuate that frequently.  
- Could happen but is unlikely.  
- Bigger issue is sending packets that fail due to rounding errors, ultimately failing the payment.  
- Accurately probing an FX rate is pretty hard because different-sized packets have different rounding errors. Some packets divide nicely but others don’t.  
- Ideas  
- Fixed-exchange rate path guarantees could be an interesting solution here.  
- Many mini-state machines to control for each thing independently (e.g., amount delivered should be distinct from time).  
- Try to complete a payment, but plan on failure.  
- Kincaid  
- Majority of incomplete payments are caused by unimplemented features or bugs in implementations.  
- Very tiny fraction of payments are caused by network errors or intermediary manipulation.  
- Create a “guidance doc” for state machines and approaches to building a STREAM sender.  
- Notes on error-cases, better explanation.  
- Discussion around each “mini state machine”  
- Kincaid  
- Opinion on best-practices is evolving.                                                                                                                                 |
| 0min  | Discuss & Prioritize 1.4 release items ([https://github.com/hyperledger/quilt/projects/9](https://github.com/hyperledger/quilt/projects/9)) | All          |                                                                                                                                                                                                 |
| 0min  | Open Discussion               | All          |                                                                                                                                                                                                 |

### Action items

- Upload call audio to wiki and link here. David Fuelling

### Recordings