

CONFIDENTIAL PURSUANT TO PROTECTIVE ORDER

Short Message Report

Conversations: 1	Participants: 2
Total Messages: 32	Date Range: 10/9/2020

Outline of Conversations



DLUGDKY6N - 2020/10/09 • 32 messages on 10/9/2020 • Etienne Napoleone <etienne@terra.money> • Paul Kim <paul@terra.money>

DEFENDANTS'
EXHIBIT
D1016
23-cv-01346 (JSR)



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Messages in chronological order (times are shown in GMT +00:00)**DLUGDKY6N - 2020/10/09**

- P** Paul Kim <paul@terra.money> <<https://github.com/terra-project/lp-watcher>> 10/9/2020, 4:58 AM
- P** Paul Kim <paul@terra.money> I made a project... 10/9/2020, 4:58 AM
- E** Etienne Napoleone <etienne@terra.money> Hey Paul 10/9/2020, 5:48 AM
- E** Etienne Napoleone <etienne@terra.money> Thanks 10/9/2020, 5:48 AM
- E** Etienne Napoleone <etienne@terra.money> Just one question... 10/9/2020, 5:49 AM
- E** Etienne Napoleone <etienne@terra.money> Can you quickly explain me what's the role of lp-server? 😊 10/9/2020, 5:49 AM
- E** Etienne Napoleone <etienne@terra.money> Is it just tracking rewards? Or is it actually triggering the distribution of them? 10/9/2020, 5:50 AM
- P** Paul Kim <paul@terra.money> lp-server creates multisend transactions by receiving transaction information from Chai 10/9/2020, 5:50 AM
- P** Paul Kim <paul@terra.money> In short: it basically replicates chai transactions 10/9/2020, 5:51 AM
- E** Etienne Napoleone <etienne@terra.money> Ahhh yes ok, this is mirroring chai traffic on chain kinda 10/9/2020, 5:51 AM
- P** Paul Kim <paul@terra.money> yes. 10/9/2020, 5:51 AM
- E** Etienne Napoleone <etienne@terra.money> So basically chai was still working, but no tx on chain so no rewards 10/9/2020, 5:51 AM
- P** Paul Kim <paul@terra.money> correct 10/9/2020, 5:51 AM
- P** Paul Kim <paul@terra.money> we have two queue layer in both chai and terra 10/9/2020, 5:51 AM
- P** Paul Kim <paul@terra.money> for making sure that we don't lost any of transactions 10/9/2020, 5:52 AM
- P** Paul Kim <paul@terra.money> (Maintenance can be always happen also) 10/9/2020, 5:52 AM
- P** Paul Kim <paul@terra.money> yes. 10/9/2020, 5:56 AM



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P Paul Kim <paul@terra.money> 10/9/2020, 5:57 AM
so the source code is really simple.

P Paul Kim <paul@terra.money> 10/9/2020, 5:57 AM
<<https://github.com/terra-project/lp-watcher/blob/master/src/index.ts#L41-L50>>

P Paul Kim <paul@terra.money> 10/9/2020, 5:57 AM
connect to websocket and sends rpc

P Paul Kim <paul@terra.money> 10/9/2020, 5:57 AM
receive message from websocket....

E Etienne Napoleone <etienne@terra.money> 10/9/2020, 5:57 AM
Yep nice

P Paul Kim <paul@terra.money> 10/9/2020, 5:57 AM
and increase the counter

P Paul Kim <paul@terra.money> 10/9/2020, 5:57 AM
<<https://github.com/terra-project/lp-watcher/blob/master/src/index.ts#L9-L31>>

P Paul Kim <paul@terra.money> 10/9/2020, 5:58 AM
timer logic checks the counter, makes pagerduty incident if that happens

P Paul Kim <paul@terra.money> 10/9/2020, 5:58 AM
```WEBSOCKET\_URL: '<ws://localhost:36657/websocket>',  
SERVICE\_ID: 'P3PURMH',  
ESCALATION\_POLICY\_ID: 'PURBAIZ',  
EMAIL: 'paul@terra.money',  
AUTH\_TOKEN: 'a4rY2K1SCxgfy-4KKM7h'```

P Paul Kim <paul@terra.money> 10/9/2020, 5:59 AM  
This is the environment variables I am using.

P Paul Kim <paul@terra.money> 10/9/2020, 5:59 AM  
hmm it would be better if we extract ALERT\_THRESHOLD\_PERIOD to environment variable as well....

P Paul Kim <paul@terra.money> 10/9/2020, 6:00 AM  
not it is defined as 10 minutes

P Paul Kim <paul@terra.money> 10/9/2020, 6:00 AM  
I want to see if it is okay within Chai maintenance period.

E Etienne Napoleone <etienne@terra.money> 10/9/2020, 6:15 AM  
and still have lp-watcher report the outage even if it's just maintenance

E Etienne Napoleone <etienne@terra.money> 10/9/2020, 10:11 AM  
..... lol

