

FACTOM COMMUNITY

MEETING MINUTES

Factom Guides

MEETING #14

2018-07-20

VERSION	DATE	CHANGED BY	CHANGES
0.1	2018-04-07	Tor Hogne Paulsen	First draft for guide review.
1.0	2018-04-09	Tor Hogne Paulsen	Version for general use in the Factom community.
1.1	2018-04-12	Tor Hogne Paulsen	Added more fields for metadata.
1.2	2018-04-15	David Chapman	Updated, “Chairman” and, “Secretary” fields.

Note: This version control is for the Template, not the individual meeting minutes.

Date and time of meeting	2018-07-20 18:00 UTC
Date minutes drafted	2018-07-20
Date minutes approved	
Organization/Team	Factom Guides
Attendees	Factom inc (Brian Deery), Centis BV (Niels Klomp), DBGrow Inc (Julian), Canonical ledgers (Sam), The 42ND Factoid LTD (Tor) (via chat).
Members not in attendance	N/A
Other attendees	
Meeting Leader	Sam Vanderwaal (CL)
Meeting Secretary	The 42ND Factoid

Subject 0	<ul style="list-style-type: none"> - Roll Call - Approval of minutes from previous meeting on (2018-07-15).
Discussion	Everyone present. Minutes from meeting #13 approved.
Conclusion	
Follow up	

Subject 1	Status onboarding new ANOs (Brian)
Discussion	We got 3 new ANOs coming up, we are starting to do the audits soon. We are still on target for bringing the ANOs on board on the end of the month. We are still mostly on track for that.
Conclusion	
Follow up	

Subject 2	Recap of Network Issues (Brian or Niels?)
Discussion	<p>Earlier this week... Last weekend we had some servers panic around the network. It was a bug complaining about balances going negative. This is one of the self protection mechanisms, if the follower nodes are seeing negative balances they protect themselves by shutting down. This was happening sporadically around followers and leaders, but restarting the leaders got them going again. A couple of days the network went down, it looks like we lost a critical mass of leaders - but the results are somewhat inconclusive at this stage. Steven was able to do some debugging - Looking at the balance hashes in the various control panels. It was inconclusive, as it did not show what we expected to see if it was this error specifically. It's a bit hard to point the finger at it. We are working on a new API that was requested by Poloniex, and this new API would have been useful in helping to diagnose this problem. There is more value that API would give beyond satisfying Poloniex. So, we first tried restarting the network like we had done in the past, and it did not quite work... We made the assumption that it had something to do with the savestate files. This was also indicative of the problems we had been seeing the week before, and so the savestate file was part of the database, the factomd data volume, which the swarm has access to. Ian was able to create a script which renamed the savestate-file on the nodes, and when we restarted a second time, the leaders rebuilt the blockchain from scratch. By doing this they ignored what was happening in any corrupted savestate files and built the pure balances from scratch, and since everyone had the same blockchain they were able to create the same balances. There were two nodes that started up a lot slower than the rest of the network, so while almost all the nodes came up, there were two who were faulted out by the majority that came online, which gave them enough time to boot properly. Part of the follow up will be to look at what caused those two nodes to boot slow, and we would see what we can do with those servers to prevent this happening again. It took 6-8 hours to restart, and it has been running OK the past few days. As a side note one of the things I was worried about with the upcoming release, was that the different federated servers would have different balances, so if any federated server was upgrading and using the new code, they would be faulted out if the majority were used without correct balances... But now that issue is removed, as all servers now have the same balances and savestate - and that's a silver lining to this.</p> <p>Niels: The two nodes who were too slow, were they from the same ANO or two different ones?</p> <p>Brian: Same ANO.</p> <p>Niels: Should we task the network committee with following this up?</p> <p>Brian: Yes, this sounds like a good job for that committee.</p> <p>Niels: As they are slow, will that have an effect on the current operations?</p> <p>Brian: No, I don't think so. It seems like it only manifests itself when the nodes are</p>

rebuilding from scratch.

Sam: Last week we voted on having the committee more involved with network issues, did we have some effects of that being the case?

Niels: The committee in itself...We started on it, and of course the committee will be involved as well. We have created an initial process for it, and we will keep working on it. We will finish a first version of the process this weekend. We also have an incident log on the google drive, and this first incident populated that with the first incident ID. It's an easy way to see and track the different incidents that happens on the network, and it will help correlate problems that happens.

Brian: I will also fill in more with that incident report.

Paul: The bug we found is an issue with all nodes rebooting, and avoiding the fastboot should be a priority. You could delete the fastboot file, and there is a flag to turn off fastboot which i'm looking for. In any case, if you are rebooting the node you should not use fastboot until it is fixed.

Niels: I think we should make an announcement about this.

Paul: Its **-fast=false**

Niels: If you change the configuration and then forget about it later when the bug has been fixed, then you will have a slow-booting node...

Paul: Its a dilemma, but you would notice the slow boot, and your node would not die, so I suggest turning it off.

Niels: We should make an announcement about turning it off.

Tor: I support that. Let's make a quick one.

Paul: Anyone booting a node now should not use fastboot.

Niels: Are you in contact with any exchanges about this?

Brian: Yes, I recommended them to delete the fastboot, and if it panics then "do this thing", if not you can just keep going.

Paul: The problem is that it happens from time to time. The fastboot file is built once a week, and if it's built correctly then its no problem. Very low frequency.

Niels: Is this the reason why we saw this happen often quickly after each other with ANOs?

Paul: Yes, after we crossed the week the bad file was created, and after rebooting the nodes would not come up again. Its a percentage of a percentage risk, and this time was just a perfect storm when many people got hit at the same time. I am working on it, I can reproduce it quickly, but all my tests say that what happens should not have happened... Looking into it.

Paul: There are corner-cases that increase the likelihood of this bug, but I have not

	gotten all of them yet. But it's really picky stuff.
Conclusion	
Follow up	

Subject 3	ANO Application Round Update (Tor)
Discussion	3 Applications so far. 13 Interested applicants previously. Application period closes on July 30th.
Conclusion	
Follow up	

Subject 4	Status of new release & grants (Brian)
Discussion	<p>Brian: Over the past week or so the rubber finally hit the road on the grants for the dollar denominated grants, so there was a thread on factomize where there was some back and forth about trying to figure out how the dollar denominated grants would work. Most of that was extremely useful, but when it came time to actual real world implementation, we found that third parties inside and outside the factom ecosystem and outside the factomize forum did not believe coinmarketcap itself was a adequate projector of an adequate price oracle, because it included poloniex which is a closed exchange at this time, and provides inaccurate price information. As an advancement to basically bring the dollar denominated grants in line with the expectations with the market, basically the solution for the oracle was to remove the percentage of weighing for coinmarketcap that was closed exchanges, in this case poloniex. So basically the grants were calculated on an exponential moving average based on the closing times from coinmarketcap. Those were then adjusted to remove the poloniex pricing data. And so, there is a spreadsheet in the governance drive (https://drive.google.com/drive/folders/1GgAtsTIZEMD77eUvQW3TSGULxIT0Ld03).</p>

	<p>With all the third parties this new more accurate market averaging calculations was acceptable, and everyone involved seemed happy with the outcome and the fairness of it.</p> <p>As far as the deployment of that, we are still thinking of only deploying in the next deployment a combination of the grants and this fix for the savestate. Rolling those two together into the next release is the top priority at this point.</p> <p>Niels: Do you have a timeline for the next release?</p> <p>Brian: As soon as possible. Finding the bug... Paul is able to reproduce the bug which is the big thing, and figuring out the race condition has proven to be difficult.</p> <p>Niels: Im aware of that. We of course have the grants. We have the wait period for the payments...</p> <p>Paul: Two weeks...</p> <p>Brian: Are you advocating that we do two deployments for this?</p> <p>Niels: If we do the release in two weeks, then we will have to advice the grant receivers that it will take two more weeks before they get paid.</p> <p>Brian: I think the two week number was kind of a joke.... But Paul, do you want to chime in?</p> <p>Paul: I think I will be able to fix the bug today and get it into testing. I would be ok with a grant release only as well, because we can turn off the fast boot, and the fast boot is implicated. The only problem is that you would have multiple releases if I don't get my act together really quick.</p> <p>Niels: It should not be a problem, as the second release would be a bug release for a critical bug.</p> <p>Paul: I have given you my view, and I can keep everyone updated on discord.</p> <p>Sam: If we do separate releases, would the grant be released straight away?</p> <p>Paul: The code is ready. We just need to fill out the numbers.</p> <p>Niels: You also need to double check the grant receivers...</p> <p>Paul/Brian: Yeah, we need a table to check - and we have contacted the receivers individually over two different channels to ensure that a single hack would not be an issue.</p>
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	<p>Niels: If we do a release with only grants in it, what timeline are we talking about? Can we state a date?</p> <p>Brian: The important part would be the activation height. Whenever that would activate.... Later next week to give people enough time to do their updates in a non-emergency fashion. I would hate to call this one an emergency update, as it does not feel like a strong emergency for me, but I could be ready this weekend.</p> <p>Tor: Maybe we give 2 days to figure it out, and if he has a solution we bundle the releases for next week. If not we split them?</p> <p>Paul: Lets see if I can fix this by tomorrow. We can schedule a grant only release if I haven't.</p> <p>Question from governance channel by @BobbyEK: When would the next round of grant applications open up?</p> <p>Niels: We don't have a date, but last time we talked about it we discussed 2-3 months.</p> <p>Sam: Any other comments on this? Ok. Move to open floor.</p>
Conclusion	
Follow up	

Subject 5	Open floor
Discussion	No business brought forward.
Conclusion	
Follow up	

Meeting adjourned at time 18:42 UTC.