FEDERATION

FACTOM COMMUNITY

MEETING MINUTES

Factom Guides

Meeting #24

2018-10-01

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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.

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Date and time of meeting	2018-10-01, 20:00 UTC
Date minutes drafted	2018-10-01
Date minutes approved	
Organization/Team	Factom Guides
Attendees	<mark>Factom inc (Brian Deery), , DBGrow Inc (Julian), Canonical ledgers (Sam), Centis BV (Niels Klomp), The 42ND Factoid LTD (Tor)</mark>
Members not in attendance	
Other attendees	
Meeting Leader	Canonical Ledgers (Sam)
Meeting Secretary	The 42ND Factoid LTD (Tor)

Subject 0	- **Roll Call** - **Approval of minutes from previous meeting on 2018-09-24**
Discussion	
Conclusion	Roll call complete (full attendance; Tor lacking mic support but listening in). Meeting minutes from last meeting. Minutes approved.
Follow up	

Subject 1	**Recent network issues (Brian)**
Discussion	Brian: As with most engineering problems it was a multitude of problems cascading together. So day 1 started with spurious messages on the network, still under investigation, those exposed weekenses in core code. Unclear if that is related to next thing that happened, where the network nodes started slowing down thursday morning/afternoon. That resulted in network stall. Normal reboot procedures were ineffective. They started creating blocks and it would take more than an hour to come to consensus. That created a problem where one of the blocks violated protocol rules such that the followers would not download a block which was longer than an hour that had transaction more than an hour old. That is going to necessitate all of the

followers around the network to upgrade to add that exception. There is an open ticket to prevent that kind of bug to happen again. After that went out the fix for that was friday night. Sat morning we found another bug where when nodes try to boot twice at the same height, they would ignore the topmost block in their DB, and so this necessitated another release that went out sat evening, this was what all the anos were doing to get up to block 160184, so then sunday morning we attempted restart again with updated code to use the highest block on network, that failed a few times, that uncovered a couple of new things. One of which was not all of federated servers were getting rebooted in the system. There were some differences that different nodes were using different configs. Expanding what the nodes looked for, what the restart script looked for, we were able to restart more of the nodes. The last thing that was preventing the nodes from starting was old process list items were still floating around the network when the nodes are rebooted so these older process list items would interfere with new items which were being generated by the fed servers after reboot. The last patch which was not needed to be deployed to anos themselves but was put on backhaul network and will go out in next release after testing, and that basically makes the fed servers ignore process list items that are older than its boot time. This introduces other oddities like followers not following along by minutes on first boot, but having an operating network at the time seemed like a higher priority. These variables can be looked at and tweaked going forward. At this point the infra around the network needs to be updated to the new software version, and a new release needs to be put out for exchanges and other follower nodes. That's the status.

Niels: Brian first and foremost for all the work you and your colleagues put in the week; I think I talk for all the guides and ANOs.. Basically a terrible weekend, but most important for you guys. And I'm glad the network is up again. I also believe that we have to learn from this, I think it's rather important that one of the things we saw was the communication with the wider audience was not good enough, as they - and sometimes we - did not know that was going on. I think it is very clear that we are very dependent on you (Factom Inc) guys, and that may have to change in the future, but

Brian: Not even we knew what was going on much of the time; we were trying to debug and understand it ourselves.

Niels: I certainly hope you didn't know what was going in - or it would not have taken us three days.

DavidK: What is the backhaul network?

Brian: There are a set of some servers that facilitate bootstrapping of new nodes into the network, and facilitate quicker communication between ANOs. So we know the p2p network is not as robust as we would like it to be, so having bootstrap nodes to basically create better connections between the authority set helps them come to consensus faster. I call it the backhaul network because eventually when factom becomes a much much larger protocol all the ANOs will have to create peer connections to each other to basically have private networks between them for peering (pairing) agreements... but that is 5-10 years down the road. I hope that answers the question.

Niels: Brian, I got a question about the new release for the exchanges. Do you have any timelines for it, and are we going to deploy it on the testnet first?

Brian: Thats a good question, so I do not know how rapidly the exchanges wants to do

this. I do not know how aggressive they are with new code. I think this a thing for the core committee to mull over, so depending on how aggressive we want to be - depends on that timeline.

Niels: Ok. Thanks.

Brian: Also some other commentary on that. We are in a weird situation right now, as 5.4.3 is running on the ANOS. 5.4.4 was released but pulled back. And so it is in the master branch, but it is not being run by the ANOs as it turned out to - even through it went through internal testing and the testnet - it will create panics, and Clay has spent the last week (prior to the troubles starting on Thursday) trying to debug 5.4.4 - but have not been successful yet. At this point we will have to do some unfortunate git stuff that will hamper future development operations because some of the quirks that git uses. The exchanges, as I understand, do not like to run branches that are not master - and so they are unwilling to do the things the ANOs were willing to do to make the system move forward. That will be unfortunate for the existing code and code under development as it will make merging significantly harder. That is just part of the troubles of pushing out this latest version, which is not going to be apparent to outsiders
.

[LayerTech] Xavierwjc#3480 Today at 10:17 PM
Trying to understand the capacity we are working with. Is it just you and Clay who are working on the core code at the moment?

Brian: No, we got help from Ian and Steven and Clay and Paul. Paul is the one who fixed the last patch. Several engineers have been working on several aspects of troubles this weekend. We have also hired several core development. (name) is coming up to speed. He is a client side smart contract expert. He participated in the factom hackathon, and Sam is also working on some core development stuff and factomd. We are growing our core team.

Paul snow asks for the floor and is granted it.

Paul: Matt York has fixed two memory spike issues; one with the initial booting of nodes that has caused people to have to run with more memory than they should have to, and tracked it down to booting from a fastboot file. And he did work eliminate a memory leak; or rather go garbage collection which increased the footprint over time. Almost glacial time, unless you do things to speed up how often we do savestates. He is already providing for the core stability. Sam has also worked on identity management related to on-chain voting. Michael Beam is also working on this.

Brian: We also got the core community. The problem that caused the stall on thursday has largely been identified, and waiting on someone from the core community to step forward to help fix this issue; one simple and one that is not so simple. I would be very pleased to get some non-factom Inc. developers to start on this critical bug.

Niels: Does that mean that the legal issues with the pull requests have been solved? It's in progress but should be solved in time for the actual pull.

Sam: That sounds like a great opportunity for someone to get working on core. Will the core committee be able to find someone to help out?

	Brian: Let's take that discussion offline). Sam: Anything else on this topic?
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Subject 2	**Next grant round - status?**
Discussion	Comment prior to the meeting: DOC 152 (grant round #2 document) has been open for community input and discussion the past week on the Factomize forum. Niels: The document has been put on the factomize forum to review. We have had several comments; some good feedback and basically there are currently three issues.: 1) People talked about timelines in the documents (they are rather long). Especially the opening and voting periods. That is true, but as this is the first open grant round we need to provide people with enough time to submit proposals. I do think we are able to optimize some of the timelines… Maybe we can shave off a week or so. Currently timeline means that the payouts will happen at the end of the year. The proposal phase is something like 4-5 weeks and would start in 1 week from now. We do need to hurry with the document; and run it by legal as well. And we do need to look at the three major issues…T 2) Another issue is lumping a lot of work into one grant. People have voiced their concerns about that. I think it is up to the grant requester to decide on that, but it is probably in everyone's best interest to not have too much in one grant. One proposal is to give individual grant categories to each grant so you cannot combine marketing with development work etc. That would solve at least one aspect of the issue; but if you are doing multiple types of marketing or development you could put a lot of work into one grant. I do not think we should prevent this; and it's up to the standing parties voting on this to decide this. It also plays into the third problem; 3) We have 130k factoids in the grant pool; and of course - according to governance - the proposals are ranked based on the amount of support (points) they get, and if two grants have the same amount of support the first grant submitted will get the grant. This might be an issue if the first grant is a very large grant which push us beyond the 130k limit; and then it would be

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	discarded. One solution to this may be pay out the grant anyways, if it does not go above the amount left in the grant pool. Sam: Another issue is that the time from the awarding of the grant and payout is 22 days, which is quite a long time in this business and puts a lot of risk on the grant receiver). Our timelines are based on the feedback from the community based on earlier experiences, and we are trying to be sensitive of that… And that means that we might get long times from proposals and payouts. Now when the network is back up and running and people have time to recuperate, we should get back the factomize forum and finish this. I would like to hear from the ANOs about how much we could compress the timeline. It's really up to the ANOs to provide feedback and we will figure it out. Niels: Also this is dependent on Factom inc., as they will have to write the code for paying out the grants, and this will take some time (2-3 days?). What does Inc think? Brian: 2-3 days should be doable. Niels: Would it be possible to shorten this? If we have the previous version of factomd handy and just put the grants in it should be fast? Brian: Yes, but it is more about risk management as well. Something may go wrong, and then it will take more time and I do not want to promise anything. But it could be radically shorter than 3 days. Sam: Any other comments about this?
Conclusion	
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Subject 3	**Onboarding status (Brian)**
Discussion	Brian: I was impressed with some of the ANOs who were planning on, or in the process of getting onboarded contributing and actively participating over the weekend with debugging process etc. That is appreciated. The onboarding so far Quintilian Today at 10:33 PM Just wondering when we plan to onboard them? What else do we need to do before we can start the audit? Brian: That would be later this week. We need to get factomd released first. Tor: What version will that be?

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	Brian: That will probably be 6.0.0 as the followers will not be able to get past block 160184(?) otherwise.
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Follow up	

Subject 4	**Follow up: tasks from last meeting / upcoming tasks**
Discussion	///// START: Text from previous guide meeting minutes (follow up items in orange color) /////

Sam:
- **Working on the next high priority items.**
    - **Grant round. Doc 152.**
- **This week we have a test of the emergency alert system. Will spend some time on that. And then take a look at the backlog list.**
    - **Worked for individual ANOs but seemed to have issued with trying to dial 20-30 numbers. I talked to Stuart about that and he made some changes to the bot and have already pushed that. I will try that during this weekend, probably with 5-10 ANOs and then schedule a full test.**

Tor:
- **Finish the ratification/approval doc and continue work on pledges.**
    - **Ratification doc is still in progress (got sidetracked this week). Been working on it and some progress has been made. Hopefully ready for public discussion in a few days as we will need it for the other processes we want to ratify.**
    - **Been working on pledges with the ANO contributions committee. As Julian mentioned we have come a long way, and we just a hour ago posted threads for each ANO in the factomize forum for discussion between the standing parties.**
    -
    - **This week will finish ratification doc, work on DOC 152 and the incident management document.**

Julian:
- **Finish this ANO-pledge process. That will take a lot of time, and nailing down this grant round. Still working with legal almost single day trying to continuing this decentralization analysis of Factom.**
    - **Worked on stuff that will be coming out the following week. Decentralization analysis and initial guidance on a potential Foundation for factom. Both should be available this week. We finished the ANO-pledge process which has been posted. This upcoming week I want to have the ANO removal progress finished so we can move to ratify it. I believe it's close to finished and we have gotten some good feedback on that. Also want to work on**

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	152 to finish that.
	Brian:
	  - **Onboard 3 ANOs**
	  - **Try to get new version as RC**
	  - **3rd party review**
	  - **Continue with Community Code Contribution**
	
	We pretty much covered this earlier in the meeting. Getting RC ready has transitioned from fixing 5.4.4 to releasing the current code that is running on the ANOs right now as well as Pauls fix. The other 3 items are still pending.
	
	Niels:
	  - **Doc 152. Feedback and incorporating**
	      - Worked on this. Got sidetracked during the weekend.
	  - **Sponsors and their role**
	      - Created a draft for this. This it not something we should mandate. Currently the document is written as suggestions for sponsors and their roles. It's best to leave this up to the grant requesters themselves and the sponsors themselves. Written as suggestions and FAQ, so people know what to expect and suggestions how to handle some stuff. I will post it later tonight, or tomorrow for the community to review. I do not think we need to ratify that document.
	
	///// END: Text from previous guide meeting minutes /////

Conclusion	
Follow up (until next meeting)	**Sam:** **Tor: Finish ratification/approval document, work on Doc 152 and the incident management document. If I have time, also wants to look at Authority Set update procedure document.** **Niels:** - **The upcoming week I will work on incidence management document, and we need to make sure that communicate with all parties involved during an outage so people know what is going on etc.** **Julian:** **Brian:**

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Subject 5	Open floor
Discussion	Brian: There is a new face here at Inc. We got a community liaison. (Factom-)Kevin. He will be tasked with interfacing with the community, providing a factom inc presence throughout the future. If you see him around go ahead and welcome him.
Conclusion	
Follow up	

Meeting adjourned at 20:45 UTC.

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