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Implementing the Initial Grants

👤 PaulSnow · 🕒 Jun 17, 2018

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PaulSnow

Factom Inc.

Jun 17, 2018

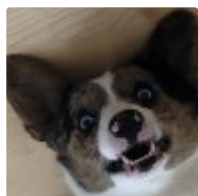
#1

We need a clear specification to implement the initial grants. I am going to suggest a 12 step program:

1. For the first 3 months, the grants are denominated in FCT and paid out monthly
2. A specification for Grant Digital Identities (GDIs) will be defined by June 22
3. All Grant recipients will define a GDI by July 1
4. Each GDI will define a FCT payout address for the grant by July 1
5. On July 1, block height estimates for scheduling payments (9, 11) and Coinbase transactions (10, 12) will be decided.
6. The Software update hard coding the initial grants will be developed and tested.
7. The USD defined grants are computed as of July 7
8. The Software Update to pay out grants will be deployed on July 8
9. The first payment will be scheduled on July 9, and will be for two months, June 9 - Aug 9
10. Coinbase transaction for payments scheduled (8) will be issued on July 16
11. The second payment will be scheduled on Aug 9 for Aug 9 - September 9
12. Coinbase transaction for payments scheduled (10) will be issued on September 16

I am of course open to other suggestions, but let's put them in a schedule and specify exactly what the code will do. Note that my suggestions above put all the grants into the same structure, and limit the number of tokens issued from the grant pool. More frequent issues of tokens isn't necessarily more difficult, but two issues are perhaps easier to exhaustively test.

 [KiwiWithLazerEyes](#)



quintilian

Guide

Factoid Authority

Jun 17, 2018

#2

Just want to mention that we have a document to put this (Doc 151 - Initial grants - payout process), so when some kind of consensus is formed here we can move it over to that document for suggestions/edits, ratification (voting to ratify the document), and then finally Factomization for posterity.

Will take a look at the particulars later.

 [PaulSnow](#)



ilzheev

Jun 17, 2018

#3

Not about initial grants, but...

Do I understand correctly, that next grants will be elected before than Sep 9?

 [PaulSnow](#)



DChapman

Staff member

Factomize

Jun 18, 2018

#4

Thanks for creating this Paul. I like your overall process but have a couple questions and suggestions since this is such an important process.

2. Will Factom Inc develop the specification or is some other entity needed to?

7. I propose changing this to, "Factom Inc will compute the amount of FCT the USD grants are to be awarded on July 7th between 3pm and 7pm UTC based upon the Bittrex market price at time of computation OR the average of the Bittrex and Poloniex market price if the Poloniex wallet is functional at the time of computation. The computation will be posted on the Factomize forum and within the Governance Chat channel on Discord."

10/12 -- These payments will be after 1,000 blocks, correct? If so, I'd suggest changing these to:

10. Coinbase transaction for payments scheduled (8) will be issued after 1,000 blocks (approximately July 16)

12. Coinbase transaction for payments scheduled (10) will be issued after 1,000 blocks (approximately September 16)

👍 PaulSnow and KiwiWithLazerEyes



Luap

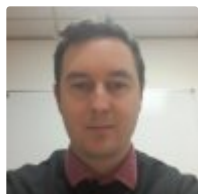
LUCIAP

Jun 18, 2018

#5

Just to be sure: do the process handle multi recipient for a single grant? For the voting grant we have 4 parties involved.

👍 PaulSnow and KiwiWithLazerEyes



KiwiWithLazerEyes

Factoid Authority

Jun 18, 2018

#6

7. Is there a technical (or other) reason that the USD defined grants should be computed on the 7th - 2 days before the first payment is scheduled?

Seems like the computation could be done on the same day as scheduling, whether it makes a difference either way who knows, but it's an extra two days of uncertainty

👍 PaulSnow

M

mig

Stamp-IT

Jun 18, 2018

#7

Concerning point 7.

Crypto is very volatile and the shallow books can be manipulated very easily (up or down). I think we might want to consider using a 10-50 days moving average to determine a FCT price instead of a price determined at a specific day/hour/second. The way the books are right now, it would be easy to push up/down the price by as much as 50%++ to lock a Factom price that is way under/over the 10-50 days moving average thus assuring an entity of an even better/worse reward in the long term.

This could go both way by the way. If a big holder knows that the rate of a BIG grant (or multiple grants) is going to be fixed at a point X in time, and they want to reduce the FCT payout(same USD) of these entities(possible FCT

inflation), right now, with less than 100 BTC they could double the price seconds before the lock up. Some news or rumors could also be spread hours before the lock up effectively temporarily pumping/dumping the price to lower/increase the FCT payouts of entities.

There is so many attack vectors possible that I believe using a moving average should be discussed before hand.

👍 PaulSnow, AdamSLVey, DChapman and 1 other person



PaulSnow

Factom Inc.

Jun 18, 2018

#8

KiwiWithLazerEyes said: 📌

7. Is there a technical (or other) reason that the USD defined grants should be computed on the 7th - 2 days before the first payment is scheduled?
Seems like the computation could be done on the same day as scheduling, whether it makes a difference either way who knows, but it's an extra two days of uncertainty

Would like to run tests, packaging, etc. which takes time.



CryptoVikings

Crypto Vikings

Jun 18, 2018

#9

We support mig's very well thought out post about using a moving average instead of the price at a point in time. A 7-day average be a good choice.

👍 PaulSnow



DChapman

Staff member

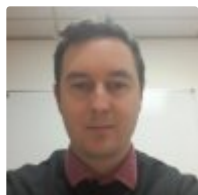
Jun 18, 2018

#10

@mig - I like the idea of a moving average. Can you specify specifically how you suggest it be computed please?

👍 PaulSnow

Factomize



KiwiWithLazerEyes

Factoid Authority

Jun 19, 2018

#11

I had similar thoughts about using MA, though when I did the numbers I got a bit nervous

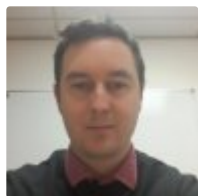
	Close Price		SMA
Jun 17, 2018	\$	10.93	\$ 10.84
Jun 16, 2018	\$	10.62	\$ 11.08
Jun 15, 2018	\$	10.65	\$ 11.71
Jun 14, 2018	\$	10.89	\$ 12.37
Jun 13, 2018	\$	9.23	\$ 13.10
Jun 12, 2018	\$	11.08	\$ 14.15
Jun 11, 2018	\$	12.48	\$ 14.92

It would have been fine the last few days (because price plateaued), but for example if we used that method on 12th/13th it would have locked in ~30-50% less coins, which is a huge difference. The discrepancy might become more favourable after a week, or it might be amplified.

Totally agree though that we need to mitigate any attack vectors. Maybe we could try an EMA?

Last edited: Jun 19, 2018

PaulSnow and DChapman



KiwiWithLazerEyes

Factoid Authority

Jun 19, 2018

#12

PaulSnow said:

Would like to run tests, packaging, etc. which takes time.

OK, thanks. I had assumed that it was arbitrary when the actual number was coded in in terms of testing etc

PaulSnow



DChapman

Staff member

Jun 19, 2018

#13

If a MA is used, I'd suggest longer than 7 days. I'd suggest a minimum of 15. The questions become, what is deemed the closing price (if that's used, for example, what timezone), what exchanges are used to compute the price (or coinmarketcap) and do we use SMA or EMA?

Factomize

 PaulSnow

M

mig

Stamp-IT

Jun 19, 2018

#14

I agree 10-50 days is probably way overkill. Probably anywhere from 50 hours (~2 days) to 120-150 hours (~7 days) should be enough to mitigate most of the risk.

Sure some of the time you might get more FCT/USD or less FCT/USD if the price fluctuate a lot in a given 2-7 days period but I think we somewhat need to avoid locking the FCT/USD price by a specific time/date/hour. The longer the period used the more costly/harder it would be to pull something like that.

What we want to avoid is someone timing a dump or a pump like that one that happened on March 19th on polo in order to increase/decrease the amount of FCT paid for the project in USD:

<https://i.gyazo.com/63e088c309aaff4b5d0ac075a49acc13.png>

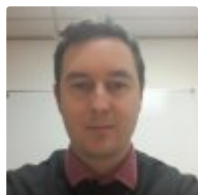
Teal is EMA 2 days

Light blue is EMA 7 days

Light yellow is EMA 20 days

With the margin trading on poloniex, it isn't that costly to get a cascade going whenever there is people long/short. Past year or 2 we have a quite a few margin calls.

Last edited: Jun 19, 2018

 PaulSnow and DChapman

KiwiWithLazerEyes

Factoid Authority

Jun 19, 2018

#15

Here's what a 7 day MA, vs a 5 day EMA looks like with a simulation of the price halving on the last day:

	Close Price	SMA	EMA
Jun 17, 2018	\$ 5.47	\$ 10.06	\$ 9.15
Jun 16, 2018	\$ 10.62	\$ 11.08	\$ 10.99
Jun 15, 2018	\$ 10.65	\$ 11.71	\$ 11.18
Jun 14, 2018	\$ 10.89	\$ 12.37	\$ 11.44
Jun 13, 2018	\$ 9.23	\$ 13.10	\$ 11.72
Jun 12, 2018	\$ 11.08	\$ 14.15	\$ 12.97
Jun 11, 2018	\$ 12.48	\$ 14.92	\$ 13.91
	\$ 12.64	\$ 15.47	\$ 14.63
	\$ 15.02	\$ 16.05	\$ 15.62
	\$ 15.23	\$ 16.21	\$ 15.92
	\$ 16.03	\$ 16.28	\$ 16.26
	\$ 16.56	\$ 16.20	\$ 16.38
	\$ 16.49	\$ 16.05	\$ 16.29
	\$ 16.33	\$ 15.88	\$ 16.19
	\$ 16.69	\$ 15.63	\$ 16.13

I think the EMA gives an OK balance.

@DChapman good point, we need a standard data source. I quite like CMC because it gives a blended average and also excludes outliers.

👍 PaulSnow and DChapman



DChapman

Staff member

Factomize

Jun 19, 2018

#16

I can understand your point on anything over 7 days being overkill but it depends on our goal for using the moving average. To avoid very short term manipulation I agree more than 7 days is overkill. But if we want to have a price that is more reflective of the longer term trend of FCT, obviously longer term moving averages would be better. My thought was 15 to account for short term manipulation and be more reflective of the longer term price but admittedly, I don't feel very strongly about it so I won't argue the point if you guys prefer shorter term.

Shall we go with 7 day EMA using CMC? And then the last question would be, what time should CMC be checked in what timezone?

👍 PaulSnow



DChapman

Staff member

Factomize

Jun 19, 2018

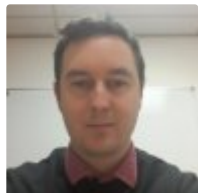
#17

As I think about it, as Paul wants the computation done on the 7th, we should just have a 7 day EMA (or whatever duration you guys want) where the last day taken into account is the 6th of the month so that they can compute at whatever time they want on the 7th. So something like:

7. Factom Inc will compute the amount of FCT the USD grants are to be awarded on July 7th by using a 7 day exponential moving average (EMA) of the CoinMarketCap.com closing price with the 6th day of the month being the

last day added to the computation. The computation will be posted on the Factomize forum and within the Governance Chat channel on Discord."

👍 PaulSnow and KiwiWithLazerEyes



KiwiWithLazerEyes

Factoid Authority

Jun 19, 2018

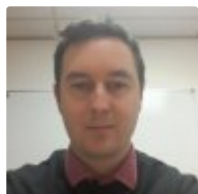
#18

DChapman said: ↻

7. Factom Inc will compute the amount of FCT the USD grants are to be awarded on July 7th by using a 7 day exponential moving average (EMA) of the CoinMarketCap.com closing price with the 6th day of the month being the last day added to the computation. The computation will be posted on the Factomize forum and within the Governance Chat channel on Discord."

That looks reasonable to me, I might be more inclined towards a 5-day EMA, but not a major difference

👍 PaulSnow



KiwiWithLazerEyes

Factoid Authority

Jun 19, 2018

#19

In terms of long term vs short term averages.

It may not matter in the end, because of the fixed 9 day delay, each method has the potential to land closer to the mark when payments are sent anyway. But in my view it's best to try and capture the current market as best as possible for the sake of relevance, then we have only the 9 days of uncertainty, rather than that plus the price variance from 2 weeks ago.

I guess something we won't be able to prevent is manipulation between computing the price and releasing the funds.

👍 PaulSnow



PaulSnow

Factom Inc.

Jun 22, 2018

#20

So... I am pretty comfortable with all this feedback, and a 5 day or 7 day moving average is great.

Doesn't seem like anyone has a problem with the general schedule. The tokens in the grant pool going back to May 25 for guide pay, and starting June 9th for the grants even at \$10 token prices still leaves tokens on the bench.

Do we have consensus on this? Is there more to discuss?

I'd like to say that the discussion was very constructive and easily managed with great suggestions. My thanks to everyone!

👍 Niels



Niels

Guide

BI Foundation

Jun 23, 2018

#21

No think a 7 day moving average is good as well as everything discussed. Didn't react because didn't have much to add to discussion. Yes I can keep quiet sometimes



KiwiWithLazerEyes

Factoid Authority

Jun 23, 2018

#22

Luap said: ⬆

Just to be sure: do the process handle multi recipient for a single grant? For the voting grant we have 4 parties involved.

I don't think Luap's question was addressed and it's rather important ^^



PaulSnow

Factom Inc.

Jun 23, 2018

#23

Sorry I forgot to address @Luap 's issue.

We can treat each recipient as a set of two payments easy enough. We can define and specify several payments as easily as one payment.

@Luap @KiwiWithLazerEyes

👍 KiwiWithLazerEyes

**Niels**

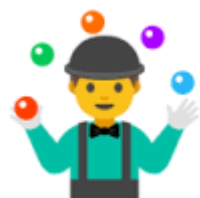
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BI Foundation

Jun 23, 2018

#24

Yeah. Thing is. Who will be held accountable to the success then? My main problem with the grant was that it should have been separate grants in my opinion. If we now also start separating the payments for the different parties involved I believe even more it should have been separate grants.

**PaulSnow**

Factom Inc.

Jun 23, 2018

#25

The grant's digital identity will get graded and the success distributed to participants as they choose through our DPoS mechanisms.

Payments are more about taxes and transparency than about standing.

I think we have the flexibility to manage this. @Niels

👍 quintilian

**Niels**

Guide

BI Foundation

Jun 23, 2018

#26

Sure to create the flexibility in payments won't be a problem from the technical side.

So if our next grant proposal comes from 3 or 4 different companies it would be ok and we are not going to hold the main contractor accountable for payments and outcome? It is not that I am completely against it. Just that this sets a precedent, so we have to think about it.

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Right now, we need those Grant Digital Identities from grant winners. @Niels @Juliant @Dunfield @DChapman

Factom Inc.

**quintilian**

Guide

Factoid Authority

Jul 2, 2018

#28

A specification for Grant Digital Identities (GDIs) will be defined by June 22
 All Grant recipients will define a GDI by July 1
 Each GDI will define a FCT payout address for the grant by July 1

Are the specifications for the GDI released? Did the recipients get told to create/define GDIs?

If not; that has to be done first.

Last edited: Jul 2, 2018

**Niels**

Guide

BI Foundation

Jul 2, 2018

#29

Tell me what to do and I will do it 😊

👍 DChapman

B**bunfield**

Factoid Authority

Jul 3, 2018

#30

Is this as simple as just creating new digital identity keys?

1

2

Next▶

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