

Jan 27 10:01:14 <sgp\_> okay, meeting time  
Jan 27 10:01:24 <sgp\_> these are issues with irccloud today, so many people will pop in and out  
Jan 27 10:01:32 <sgp\_> the matrix relays appear to be working however  
Jan 27 10:01:43 <sgp\_> <https://github.com/monero-project/meta/issues/545>  
Jan 27 10:01:45 <sgp\_> 1. Greetings  
Jan 27 10:01:49 <ArticMine> Hi  
Jan 27 10:02:11 \* xiphon has quit (Remote host closed the connection)  
Jan 27 10:02:23 <sgp\_> ArticMine sarang moneromooo knaccc dEBRUYNE vtnerd  
Jan 27 10:02:55 <knaccc> howdy  
Jan 27 10:04:27 \* xiphon (~xiphon@45.43.14.47) has joined  
Jan 27 10:04:51 \* Jaquee has quit (Ping timeout: 264 seconds)  
Jan 27 10:04:54 \* theruran has quit (Read error: Connection reset by peer)  
Jan 27 10:05:10 <UkoeHB> hi  
Jan 27 10:05:10 \* Jaquee (sid219000@gateway/web/irccloud.com/x-fvqvsovzrzgnntgl) has joined  
Jan 27 10:05:18 \* theruran (uid11305@gateway/web/irccloud.com/x-ikpyjjqvghabfez) has joined  
Jan 27 10:07:16 <sgp\_> pretty quiet crowd, but it normally picks up as the meeting goes on  
Jan 27 10:07:39 <sethsimmons> Hi all  
Jan 27 10:07:43 <sgp\_> were there any outstanding items on the triptych discussion from the last two weeks?  
Jan 27 10:08:49 <ArticMine> The question I saw came down to timing  
Jan 27 10:08:51 <sgp\_> looks like there aren't any outstanding items at this time, except to find out who will work on it  
Jan 27 10:09:44 <sgp\_> my understanding is that this is waiting on optimizations and some consensus decisions from sarang (eg: related to output selection)  
Jan 27 10:10:01 <sgp\_> unless someone else is willing/able to work on these  
Jan 27 10:10:13 <ArticMine> ... and the issue of multisig  
Jan 27 10:10:46 <sgp\_> are there any multisig decisions that need to be made?  
Jan 27 10:11:25 <UkoeHB> whether it must be supported if triptych goes live  
Jan 27 10:11:37 <ArticMine> It is more a question on how multisig will be handled and the time required  
Jan 27 10:12:02 <UkoeHB> yeah it sounds like a big project  
Jan 27 10:12:24 <ArticMine> It raised issue around changing the address format to ensure compatibility  
Jan 27 10:13:44 <ArticMine> I agree with UkoeHB it is a big project to deal with all the details and ramifications  
Jan 27 10:13:48 \* Jaquee has quit (Read error: Connection reset by peer)  
Jan 27 10:13:50 \* theruran has quit (Ping timeout: 264 seconds)  
Jan 27 10:14:10 \* hotaru has quit (Read error: Connection reset by peer)  
Jan 27 10:14:10 \* sgp\_ has quit (Read error: Connection reset by peer)  
Jan 27 10:14:10 \* kl\_ has quit (Read error: Connection reset by peer)  
Jan 27 10:14:11 \* needmoney90 has quit (Read error: Connection reset by peer)  
Jan 27 10:14:14 \* scoobybejesus has quit (Read error: Connection reset by peer)  
Jan 27 10:14:39 <sgp\_[m]> Yeah, it's a big project  
Jan 27 10:15:04 <sgp\_[m]> I don't think we should change address formats, but it's a potential option  
Jan 27 10:15:30 <ArticMine> It may be necessary to support multisig  
Jan 27 10:15:57 <sgp\_[m]> In what way is changing address formats necessary?  
Jan 27 10:16:35 <ArticMine> It I recall it had to do with preventing the sending to  
Jan 27 10:16:50 \* selsta has quit (Ping timeout: 264 seconds)  
Jan 27 10:16:58 <sgp\_[m]> The legacy multisig "conversion" process is the other option

Jan 27 10:17:09 \* v1docq48 has quit (Ping timeout: 246 seconds)  
Jan 27 10:17:20 <sgp\_[m]> I lean towards that actually  
Jan 27 10:17:24 \* kl\_ (uid344501@gateway/web/irccloud.com/x-vdghuqnaxhsqzooob) has joined  
Jan 27 10:17:27 \* luigi1111 has quit (Ping timeout: 264 seconds)  
Jan 27 10:17:33 <ArticMine> of new format transactions to old addresses  
Jan 27 10:17:41 \* Isthmus has quit (Read error: Connection reset by peer)  
Jan 27 10:17:42 \* n3ptune has quit (Read error: Connection reset by peer)  
Jan 27 10:17:49 \* v1docq48 (~v1docq47@ns1.soveren.ru) has joined  
Jan 27 10:18:19 \* Jaquee (sid219000@gateway/web/irccloud.com/x-pepbcbjkacfqvovok) has joined  
Jan 27 10:18:27 <ArticMine> My take on this is that we should not hold up BP+, CLSAG ring changes and Issue 70 over this  
Jan 27 10:18:30 \* scoobybejesus (sid271506@gateway/web/irccloud.com/x-nyhmsnxitixtasnp) has joined  
Jan 27 10:18:36 \* luigi1111 (sid85934@gateway/web/irccloud.com/x-kpsdkemopvzlgzls) has joined  
Jan 27 10:18:36 \* ChanServ gives channel operator status to luigi1111  
Jan 27 10:18:41 \* Isthmus (sid302307@gateway/web/irccloud.com/x-wakztygihckhavkd) has joined  
Jan 27 10:18:45 \* theruran (uid11305@gateway/web/irccloud.com/x-ulczhfksvacihqzp) has joined  
Jan 27 10:18:47 \* sgp\_ (sid329439@gateway/web/irccloud.com/x-nfknsrwilmlpbons) has joined  
Jan 27 10:18:51 <sgp\_[m]> Yes, to spend triptych outputs sent to legacy multisig wallets, they need to be "converted" to a non-multisig wallet before they can be spent iirc  
Jan 27 10:18:57 \* n3ptune (uid308622@gateway/web/irccloud.com/x-qtrvwclimeathlvu) has joined  
Jan 27 10:19:05 \* needmoney90 (sid289137@gateway/web/irccloud.com/x-ctpvxhvrqnqqrzvj) has joined  
Jan 27 10:19:10 \* selsta (sid124829@gateway/web/irccloud.com/x-esbxvurwghezmahd) has joined  
Jan 27 10:19:59 \* hotaru (uid481846@gateway/web/irccloud.com/x-yzmrzlrffjjxzlbld) has joined  
Jan 27 10:20:06 <sgp\_[m]> Is there anything new on triptych or should we talk about 70?  
Jan 27 10:20:07 <ArticMine> So one needs to prevent Triptych outputs from being sent to legacy multisig wallets  
Jan 27 10:20:20 <ArticMine> hence the address format change  
Jan 27 10:20:48 <sgp\_[m]> ArticMine: not necessarily, those changes could cause more problems than they solve  
Jan 27 10:21:12 <sgp\_[m]> I'd rather defer that conversation topic however and talk about 70  
Jan 27 10:21:19 <ArticMine> This is of course valid and in need of further discussion  
Jan 27 10:21:27 <ArticMine> Sure  
Jan 27 10:22:00 <sgp\_> <https://github.com/monero-project/research-lab/issues/70#issuecomment-768036260>  
Jan 27 10:22:30 <sgp\_> you have the floor articmine  
Jan 27 10:22:57 <ArticMine> In a nutshell we need to prevent drastic increases in fees  
Jan 27 10:23:31 <ArticMine> With the current situation if we had say 100x the level of adoption  
Jan 27 10:23:36 <UkoeHB> I think we discussed this last week, triptych multisig requires no conversions or different address formats. The main problem is it requires implementing complicated new crypto <https://github.com/monero-project/research-lab/issues/72>  
Jan 27 10:24:32 <UkoeHB> although if multisig isn't supported then sending triptych outputs to a multisig address is bad  
Jan 27 10:24:35 <sgp\_[m]> ArticMine: I'm worried fees are way too low right now honestly  
Jan 27 10:24:43 <ArticMine> or more. Then a disruption to the Monero network either external or the result of an attack would cause a drastic fee increase

Jan 27 10:25:10 <ArticMine> My proposal by the way has a fee increase about 5x for the min fee  
Jan 27 10:25:13 \* n3ptune has quit (Ping timeout: 260 seconds)  
Jan 27 10:25:31 \* scoobybejesus has quit (Read error: Connection reset by peer)  
Jan 27 10:25:31 \* Jaquee has quit (Read error: Connection reset by peer)  
Jan 27 10:25:32 \* hotaru has quit (Read error: Connection reset by peer)  
Jan 27 10:25:32 \* luigi1111 has quit (Read error: Network is unreachable)  
Jan 27 10:25:40 <sgp\_[m]> Okay, so getting rid of the current min tier effectively  
Jan 27 10:25:54 <ArticMine> Yes  
Jan 27 10:26:25 <sgp\_[m]> So if I can try to summarize changes:  
Jan 27 10:26:36 <ArticMine> The min fee is set to the minimum fee that support scaling  
Jan 27 10:26:51 <ArticMine> There are 3 critical changes  
Jan 27 10:26:53 <sgp\_[m]> 1. Higher initial minimum fee, but lower fee "slope" as transaction counts increase?  
Jan 27 10:27:07 <ArticMine> Correct  
Jan 27 10:27:17 \* luigi1111 (sid85934@gateway/web/irccloud.com/x-etqdwfgvupfcnjou) has joined  
Jan 27 10:27:17 \* ChanServ gives channel operator status to luigi1111  
Jan 27 10:27:29 \* selsta has quit (Ping timeout: 272 seconds)  
Jan 27 10:27:33 \* needmoney90 has quit (Ping timeout: 260 seconds)  
Jan 27 10:27:38 \* sgp\_ has quit (Ping timeout: 264 seconds)  
Jan 27 10:27:39 \* Isthmus has quit (Ping timeout: 264 seconds)  
Jan 27 10:27:39 \* theruran has quit (Ping timeout: 264 seconds)  
Jan 27 10:27:43 <ArticMine> So at 1425000 bytes the min fee equals the current formula  
Jan 27 10:28:17 <ArticMine> ... but the spam cost is higher  
Jan 27 10:28:23 <ArticMine> than now  
Jan 27 10:28:31 \* MRL-discord (~MRL-disco@li501-43.members.linode.com) has joined  
Jan 27 10:28:44 <ArticMine> The main consensus changes are  
Jan 27 10:29:12 <sgp\_[m]> Is that crossover point ~10x increase in transactions compared to now?  
Jan 27 10:29:14 \* maxwilli- (~maxwillia@gateway/tor-sasl/maxwilliamson) has joined  
Jan 27 10:29:23 <sgp\_[m]> (Roughly)  
Jan 27 10:29:48 <ArticMine> more like 30x or more  
Jan 27 10:29:59 \* maxwilliamson has quit (Ping timeout: 268 seconds)  
Jan 27 10:30:15 <ArticMine> Give me a sec  
Jan 27 10:30:21 \* n3ptune (uid308622@gateway/web/irccloud.com/x-otzhkvkgidaecugn) has joined  
Jan 27 10:30:24 <sgp\_[m]> How did you choose the "slope?"  
Jan 27 10:30:37 <sgp\_[m]> Based on expected market cap?  
Jan 27 10:30:59 <ArticMine> It follows the minimum fee that allows for scaling  
Jan 27 10:31:02 \* scoobybejesus (sid271506@gateway/web/irccloud.com/x-ddlepvpgrzagypv) has joined  
Jan 27 10:31:22 \* n3ptune[m] (n3ptunemat@gateway/shell/matrix.org/x-mzmarbnjzunltmq) has joined  
Jan 27 10:31:33 <ArticMine> So it follows the inverse square of the long term median  
Jan 27 10:31:49 \* Jaquee (sid219000@gateway/web/irccloud.com/x-bzpjessxbtdzvuaw) has joined  
Jan 27 10:31:50 \* hotaru (uid481846@gateway/web/irccloud.com/x-rprwnjfaxmrtjzxw) has joined  
Jan 27 10:32:01 <ArticMine> So this is the natural slope  
Jan 27 10:32:09 \* selsta (sid124829@gateway/web/irccloud.com/x-cvpqqqxrwjeztmjl) has joined  
Jan 27 10:32:22 <ArticMine> Back to blocksize  
Jan 27 10:32:35 <sgp\_[m]> You changed a variable though right? 1.4 to 2?

Jan 27 10:32:45 <ArticMine> currently the average is about 40k  
Jan 27 10:33:11 <ArticMine> Yes that is the consensus part  
Jan 27 10:33:29 \* theruran (uid11305@gateway/web/irccloud.com/x-bxxmrikpyiuxlydk) has joined  
Jan 27 10:33:30 \* Isthmus (sid302307@gateway/web/irccloud.com/x-nitrndbvkkppxkjk) has joined  
Jan 27 10:33:33 <ArticMine> It is needed to allow for the current rate of growth  
Jan 27 10:33:38 \* sgp\_ (sid329439@gateway/web/irccloud.com/x-zrswqwqrssagart) has joined  
Jan 27 10:33:47 \* needmoney90 (sid289137@gateway/web/irccloud.com/x-pvovjzuzgdhfnft) has joined  
Jan 27 10:33:48 <ArticMine> so the long term median does not fall behind  
Jan 27 10:33:57 <ArticMine> even at maximum  
Jan 27 10:34:06 <dEBRUYN> Here, mostly reading  
Jan 27 10:34:18 <ArticMine> The other 2 consensus changes are  
Jan 27 10:34:26 <sgp\_[m]> I'm a little skeptical about the 1.4->2 change in particular  
Jan 27 10:34:42 <ArticMine> 2) putting a floor under the long term median for decay  
Jan 27 10:35:24 <ArticMine> This is critical  
Jan 27 10:35:50 <sgp\_[m]> Is there currently no floor? No max rate of decrease?  
Jan 27 10:36:02 <ArticMine> since we cannot have a long term median that has been built up  
over years falling in just over 2 months  
Jan 27 10:36:08 <ArticMine> none  
Jan 27 10:36:36 \* jess has quit (Quit: updates)  
Jan 27 10:36:43 <ArticMine> the other is making the minimum penalty zone dynamic  
Jan 27 10:36:55 <ArticMine> by setting it to the long term median  
Jan 27 10:37:07 \* jess (jess@freenode/staff/jess) has joined  
Jan 27 10:37:23 \* tromp has quit (Remote host closed the connection)  
Jan 27 10:37:37 <ArticMine> The rate increase from 1.4 to is needed just take a look at the  
growth in adoption  
Jan 27 10:37:41 \* TheoStorm (~TheoStorm@97.69-247-81.adsl-dyn.isp.belgacom.be) has joined  
Jan 27 10:37:52 <sgp\_[m]> Okay, I think I am following on how it is dynamic  
Jan 27 10:37:57 <ArticMine> We cannot stymie Monero like Bitcoin  
Jan 27 10:38:53 <ArticMine> So there needs to be room on the max growth not be set so tight  
that say events like 2016 would cause problems  
Jan 27 10:39:04 <sgp\_[m]> You're allowing the minimum penalty free zone to grow  
Jan 27 10:39:10 <ArticMine> Yes  
Jan 27 10:39:27 <ArticMine> The prevents a sharp drop in the short term median  
Jan 27 10:39:42 <ArticMine> and prevents a sharp increase in fees  
Jan 27 10:40:13 <sgp\_[m]> Do you have a table where you play this out?  
Jan 27 10:40:30 <ArticMine> I am not sure  
Jan 27 10:40:37 <ArticMine> I have some fee examples  
Jan 27 10:40:39 <ArticMine> fee  
Jan 27 10:40:46 <sgp\_[m]> Sure what are those  
Jan 27 10:41:19 <ArticMine> I am looking at all the way from 300000 bytes to 1500000 bytes  
Jan 27 10:41:22 \* shillo has quit (Read error: Connection reset by peer)  
Jan 27 10:41:57 <sgp\_[m]> Okay, so with some form of penalty under current circumstances  
Jan 27 10:42:32 <ArticMine> The penalty formula does not change  
Jan 27 10:42:36 <sech1> Will we have to say bye to our current 0.2 cent fees?  
Jan 27 10:42:52 <ArticMine> Yes they will become 1 cent USD  
Jan 27 10:43:14 <ArticMine> but if adoption increase they can come back  
Jan 27 10:43:18 <ArticMine> they  
Jan 27 10:43:27 <sech1> But what if we just scale everything down 5x after these changes?

Jan 27 10:43:39 <ArticMine> or 4x  
Jan 27 10:43:56 \* shillo (~shillosop@unaffiliated/shillosopher) has joined  
Jan 27 10:43:57 <ArticMine> The low fee will not scale  
Jan 27 10:44:07 <ArticMine> just as it does not scale now  
Jan 27 10:44:59 <sgp\_[m]> You say the penalty formula doesn't change; I don't really get that  
Jan 27 10:44:59 <ArticMine> but there are many in the community that are concerned about the very low fee especially before the network grows  
Jan 27 10:45:12 <sgp\_[m]> Doesn't it set a new ML so it does indeed change?  
Jan 27 10:45:45 <ArticMine> The penalty formula applies to the MS / MN  
Jan 27 10:46:00 <ArticMine> What changes is the penalty free zone  
Jan 27 10:46:23 <ArticMine> so MN does not fall below ML  
Jan 27 10:47:04 <ArticMine> much has now MN does not fall below 300000  
Jan 27 10:47:26 <ArticMine> Once MN is over ML the penalty formula does not change  
Jan 27 10:48:20 <ArticMine> You mean going from 1.4 to 2 in the rate of growth of ML?  
Jan 27 10:48:38 <sgp\_[m]> That wasn't what I was referring to, but we can talk about that separately  
Jan 27 10:48:58 <ArticMine> There is no change in ML then  
Jan 27 10:49:40 <ArticMine> The different is that now MN can go below ML and still require penalty  
Jan 27 10:50:25 <sgp\_[m]> What growth rate is allowed with 2  
Jan 27 10:50:41 <sgp\_[m]> 1.4 to 2 is a pretty large jump  
Jan 27 10:50:41 <ArticMine> 2x over 69 days  
Jan 27 10:51:10 <ArticMine> vs 1.4x over 69 days  
Jan 27 10:51:23 <ArticMine> The is maxing every this out  
Jan 27 10:51:36 <ArticMine> That  
Jan 27 10:52:41 <sgp\_[m]> So with 2x, looks like a 7.4x allowable increase per year if my math is right  
Jan 27 10:52:51 <sgp\_[m]> Wait  
Jan 27 10:52:56 <sgp\_[m]> What was under 1.4  
Jan 27 10:53:00 <sgp\_[m]> \*that  
Jan 27 10:53:18 <sgp\_[m]> 10.6x with 2?  
Jan 27 10:53:52 <sgp\_[m]> Or does it scale up even faster  
Jan 27 10:54:40 \* Jaquee has quit (Ping timeout: 265 seconds)  
Jan 27 10:54:46 <ArticMine> 5.3 with 1.4 vs 32 with 2  
Jan 27 10:54:53 \* needmoney90 has quit (Read error: Connection reset by peer)  
Jan 27 10:54:53 \* sgp\_ has quit (Read error: Connection reset by peer)  
Jan 27 10:54:53 \* selsta has quit (Read error: Connection reset by peer)  
Jan 27 10:54:55 <ArticMine> In 2016 we say 10X  
Jan 27 10:55:00 \* theruran has quit (Read error: Connection reset by peer)  
Jan 27 10:55:04 \* hotaru has quit (Read error: Connection reset by peer)  
Jan 27 10:55:04 \* Isthmus has quit (Read error: Connection reset by peer)  
Jan 27 10:55:29 <sgp\_[m]> What's the math to get 5.3 and 32?  
Jan 27 10:55:54 <ArticMine>  $1.4^5$  vs  $2^5$   
Jan 27 10:56:17 <sgp\_[m]> Got it  
Jan 27 10:56:24 \* modul8[m] has quit (Ping timeout: 260 seconds)  
Jan 27 10:56:24 \* jonathancross has quit (Ping timeout: 260 seconds)  
Jan 27 10:56:25 \* masterbob79[m] has quit (Ping timeout: 260 seconds)  
Jan 27 10:56:25 <ArticMine> For it to work properly it is not run at max  
Jan 27 10:56:35 <ArticMine> not even close

Jan 27 10:57:24 <sgp\_[m]> Why not, say, 1.6? Closer to 10x, and you can still pay more to use the space than the min fee

Jan 27 10:57:52 <ArticMine> It would have failed in 2016

Jan 27 10:58:03 \* modul8[m] (modul8matr@gateway/shell/matrix.org/x-icyphwosvzjocfnk) has joined

Jan 27 10:58:14 <sgp\_[m]> It wouldn't have failed, transactions simply would have gotten more expensive for a short term

Jan 27 10:58:26 \* masterbob79[m] (masterbob7@gateway/shell/matrix.org/x-psonxmcanjvetah) has joined

Jan 27 10:58:30 \* jonathancross (jonf3nmatr@gateway/shell/matrix.org/x-qmfohxjnzvymajmr) has joined

Jan 27 10:59:06 <ArticMine> We would the be relying on the burst capability on ongoing growth

Jan 27 10:59:32 <ArticMine> and setting up the stage for the scenario in issue 70

Jan 27 10:59:42 \* Jaquee (sid219000@gateway/web/irccloud.com/x-culantbssdhrkgs) has joined

Jan 27 10:59:45 <sgp\_[m]> I need to run, but we can continue this conversation later

Jan 27 11:00:18 <ArticMine> In any case the place for this is on the githu post

Jan 27 11:00:24 <ArticMine> github

Jan 27 11:01:01 \* glv has quit (Quit: ERC (IRC client for Emacs 27.1))

Jan 27 11:01:32 <ArticMine> not tying up the meetig

Jan 27 11:01:36 <ArticMine> meetig

Jan 27 11:01:37 <sgp\_[m]> Okay cool

Jan 27 11:01:43 <sgp\_[m]> Meeting over :)