LabCFTC Recent Meetings Report

July 24, 2017 through August 7, 2017

Meeting Date Entity / Party Contact Person	FinTech Vertical	Innovation Focus Area(s)	Entity Background	Key Take-Aways	Status/Next Steps	Relevant CFTC Offices
Jul 24 **Consensys** James Slazas Director of Financial Products	DLT	Ethereum ecosystem development. Building private, permissioned ledgers for commercial use. Exploring potential ways to link private ledgers with public ones.	"ConsenSys is a venture production studio building decentralized applications and various developer and end-user tools for blockchain ecosystems, primarily focused on Ethereum." ConsenSys presents itself as the largest Ethereum developer in the world. Joe Lubin was one of the 8 creators of Ethereum. He began ConsenSys about 3 years ago to build infrastructure for the Ethereum ecosystem. ConsenSys is currently working on about 30 projects at the protocol level and application level. Consensys also does consulting work with firms interested to use Ethereum.	• Consensys wants to participate in "Lab" part of LabCFTC. • Consensys believes governments will move to blockchain for most or all ledger/database services. (See Dubai 20/20 initiative.) • Consensys believes that speed and privacy issues with public blockchain-based ledgers will be solved.	• Maintain diaologue. • Additional follow-up on Ethereum technology may be a useful next step. • Consider what participation in the "Lab" part of LabCFTC might mean.	

Non Responsive Record

Meeting NYC (Jeff Bandman in NYC) / Phone Conference

Entity: Consensys

Participants/Representatives: James Salazar, ConsenSys Director of Financial Products, james.slazas@consensys.net 323 309 6020 and Vanessa Grellet vanessa.grellet@consensys.net 646 228 4338

Consensys, 49 Bogart Street, Suite 22, Brooklyn, NY 11206

LabCFTC Team Members: Jeff Bandman; Jorge Herrada; Brian Trackman

June 2, 2017

[Introductions] Vanessa there less than a year; has a number of roles. James ran a book for Lehman previously and worked with HNW group. Focuses on enterprise stakeholders (big players and regulators). Also creating Consensys capital to invest in the crypo-space for legacy institutions.

ConsenSys is the largest Ethereum development company in the world and one of the biggest voices in building out the blockchain ecosystem. I [James Salazar] lead our capital markets solutions and asset management activities. It would be great to connect so we can discuss from the derivative perspective as well as a blockchain sandbox one. We have deployed our sandbox infrastructure on Microsoft Azure and Redhat Openshift.

A bit over 215 people worldwide. Joseph Lubin is founder; he also helped start Ethereum. Focus is building ecosystem. This includes: developer tools, hosted on various resources (Azure, Alibaba, TenCent, Redhat, Openshift, etc.). The gamut of use cases. Consensys also works with management consulting firms and others through "enterprise division" to support client demand for development. Can serve as tech advisor as well as ecosystem developer.

Idea from James: Subcommittee of TAC re: Blockchain. He participated in last TAC meeting.

Jeff noted FinTech Working Group. Jeff provided brief overview of LabCFTC.

Consensys may help raise awareness.

Supply chain management.

Vanessa works on Ethereum Alliance (developers worldwide). Will send list of ~100 members. Structured as a foundation. Core protocol layer is open and common. "Verticals" then developed by individuals.

Ethereum operates as a public chain. Therefore, lots of developers.

Corda discussion. JPM leveraging. Consensys will build off Corda as well. No real competition. Everyone is working on blockchain adoption. Mindset is to adopt what works; no pride of authoriship/ownership.

Consensys views interoperability among systems as a key to adoption. [Query - Does this militate for us to raw data?]

➔ What about public/private blockchain debate?
   ○ Regulator Perspective: private looks more familiar to traditional regulatory model
   ○ But what about public, decentralized models?
   ○ What is longer term vision?

James: 1) "Private" chain sounds good (familiar, etc.). Most enterprises are on this track.

2) The future, however, is moving toward public chain in the sense that there are growing applications. Likely that regulators with private chains will also use public chain as a resource. That is why compatibility is so vital. (*i.e.,* credit check; KYC checks)

Vanessa: Timing is also important. Building a private chain right now is easier and workable. Public chain is not where it needs to be currently, BUT over time as the technology evolves, then the approach will change as well for bigger players.

Specific Items:

1)   Ethereum sandboxes are easy to create. What is CFTC doing here?

Jeff noted limits. Engagement at present is subject to statutory authority and funding. Ability to join consortia for example is not straightforward.

2)   Possibility of Follow-On contacts

3)   Inter-Regulator Sharing:

         Noted that real-data sharing is not really on the Table.

4)   Discussion of CFTC as a node on chain(s) set up using Ethereum.

         Challenges around this but something we'd be interested in. Lesser option is "observer role."

5)   Coordination with other NYC, DC, Boston, Chicago, other FinTech innovators.

6)   Tracking Use Cases – Info on Consensys helping BHP track of core samples:

http://www.coindesk.com/bhp-billiton-blockchain-mining-company-supply-chain/

The world's largest mining firm by market value intends to begin using the ethereum blockchain to improve its supply chain processes.

BHP Billiton revealed at the second annual Global Blockchain Summit that it will use blockchain to record movements of wellbore rock and fluid samples and better secure the real-time data that is generated during delivery. According to BHP geophysicist R Tyler Smith, the new system will enable benefits for its internal efficiency while allowing it to work more effectively with partners.

Smith explained that BHP relies on vendors at nearly every stage in the mining process, contracting with geologists and shipping companies to collect samples and conduct analyses that drive business decisions that occur with parties distributed across continents.

"With blockchain, we would share data between the vendor and ourselves, and have a constant understanding of where it is," Smith told CoinDesk, adding:

"Everything right now is being tracked through spreadsheets."

Smith explained that, with the help of a solution developed by blockchain startups BlockApps and Consensys, BHP intends to begin requiring that its vendors use the technology to collect live data this year.

While introducing a new technology to an existing operation may seem risky, Smith said he's confident in the user experience the app will provide.

"The web application is designed for the vendor. The vendor will see a dashboard and options on what to do that are very streamlined to their job," Smith said.

More broadly, Smith noted that the UK and Australia-based mining firm is distributed globally, and that because of this, he foresees more ways that its internal entities could use blockchain for more enhanced data sharing.

In addition working with ethereum, BHP is also running its own nodes on the InterPlanetary File System (IPFS), a peer-to-peer file sharing protocol that is increasingly being used in conjunction with blockchain systems.

Smith added: "We are looking at lots of different use cases."

As ranked by 'Big Four' accounting firm PwC in June of this year, BHP Billiton was the largest mining firm by market capitalization for 2015 and 2014.

Proving provenance

Far from using blockchain as a form of currency, BHP's solution envisions how its existing processes could be replicated on a blockchain as a way to prove benefits of the technology.

Smith said that the use case proves blockchain solutions can achieve decentralized file storage, multi-party data acquisition and immutability, all aspects that he believes will enhance the supply chain.

For example, the location of the well, he said, cannot be edited, but other aspects can be updated with new metadata to reflect relevant information, and that data that will also be immediately accessible.

Under the hood, the blockchain won't be moving between addresses, but rather changing its state, updating data fields by logging in with a standard username and password.

While certain elements of the system are the same, he said that overall the platform provides new efficiencies.

"The data is more transparent, we can see where the analysis was provided by a vendor or ask if we need to do more robust analysis," Smith said.

Moving to production

The product launch is also a milestone for BlockApps, the blockchain startup that built the BHP solution and that recently closed a pre-Series A funding round that value of which was not disclosed.

Kieren James-Lubin, founder of BlockApps, sees the collaboration with BHP as one that has significance for the broader blockchain space as it is "not about value movement".

"There are so many financial use cases and this is one of the first instances where we're using it for a non-financial scenario," he told CoinDesk.

James-Lubin said that the app also helped his startup learn more about the needs of enterprise institutions, helping it advance and iterate on a user experience that would be accessible to those who are less familiar with its inner-workings.

"The requirements that we've surfaced have been a tremendous help to us in feeding back into the platform," he said, concluding:

Additional Information:

Begin Forwarded Message:

From: "James Slazas" <james.slazas@consensys.net>
Subject: CFTC lab ConsenSys
Date: 01 June 2017 14:42
To: "'Vanessa Grellet'" <vanessa.grellet@consensys.net>, "Bandman, Jeffrey" <JBandman@CFTC.gov>
Cc: "Trackman, Brian" <BTrackman@CFTC.gov>, "Herrada, Jorge" <JHerrada@CFTC.gov>

Yes, looking forward to tomorrow. Cheers,

James Slazas

ConsenSys Director of Financial Products
49 Bogart Street. Suite 22. Brooklyn, NY 11206
james.slazas@consensys.net / USA Cell 323 309 6020

Skype: slazas1 Wechat: slazas

From: Vanessa Grellet [mailto:vanessa.grellet@consensys.net]
Sent: Thursday, June 1, 2017 2:12 PM
To: Bandman, Jeffrey <JBandman@CFTC.gov>
Cc: James Slazas <james.slazas@consensys.net>; Trackman, Brian <BTrackman@CFTC.gov>; Herrada, Jorge <JHerrada@CFTC.gov>
Subject: Re: Update - TAC Meeting

Wonderful see you there !

Vanessa Grellet

ConsenSys

+1 646 228 4338

Sent from my iPhone

On Jun 1, 2017, at 2:03 PM, Bandman, Jeffrey <JBandman@CFTC.gov> wrote:

James and Vanessa, just want to make sure you are coordinating.

CFTC is at 140 Broadway

On: 01 June 2017 10:38, "James Slazas" <james.slazas@consensys.net> wrote:

9:00 works, what is your address?

ConsenSys Director of Financial Products
49 Bogart Street, Suite 22, Brooklyn, NY 11206
james.slazas@consensys.net / USA Cell 323 309 6020
Skype: slazas1 Wechat: slazas

-----Original Message-----
From: Bandman, Jeffrey [mailto:JBandman@CFTC.gov]
Sent: Wednesday, May 31, 2017 9:10 PM
To: James Slazas <james.slazas@consensys.net>
Subject: Re: Update - TAC Meeting

Possibly at 9 in our NY office

Jeff

Sent from my BlackBerry 10 smartphone.
 Original Message
From: James Slazas
Sent: Wednesday, May 31, 2017 7:32 PM
To: Bandman, Jeffrey
Subject: RE: Update - TAC Meeting

Jeff,

My colleague Vanessa Grellet said she already connected with you and you
were interested in getting together to discuss the lab. Would this Friday
morning work for you?

Cheers,

James Slazas

ConsenSys Director of Financial Products
49 Bogart Street, Suite 22, Brooklyn, NY 11206 james.slazas@consensys.net /
USA Cell 323 309 6020
Skype: slazas1 Wechat: slazas

-----Original Message-----
From: James Slazas [mailto:james.slazas@consensys.net]
Sent: Tuesday, May 30, 2017 1:17 PM
To: 'Griffin, Ward P' <WGriffin@CFTC.gov>; 'Fett, Nicholas' <NFett@CFTC.gov>
Cc: 'Bandman, Jeffrey' <JBandman@CFTC.gov>
Subject: RE: Update - TAC Meeting

Thank you Ward and do me a favor and get more clarity on if leveraging ETH
or BTC is a swap! Also, would you like to be a part of these discussions or
shall I move you to BCC?

Jeff,

Pleasure to be introduced to you. ConsenSys is the largest Ethereum
development company in the world and I would say one of the biggest voices
in building out the blockchain ecosystem. I lead our capital markets
solutions and asset management activities. It would be great to connect so
we can discuss from the derivative perspective as well as a blockchain
sandbox one. We have deploy our sandbox infrastructure on Microsoft Azure
and Redhat Openshift.

Are you available for a call or meeting?

Cheers,

James Slazas

ConsenSys Director of Financial Products
49 Bogart Street, Suite 22, Brooklyn, NY 11206 james.slazas@consensys.net /
USA Cell 323 309 6020
Skype: slazas1 Wechat: slazas

-----Original Message-----

From: Griffin, Ward P [mailto:WGriffin@CFTC.gov]
Sent: Tuesday, May 30, 2017 10:19 AM
To: James Slazas <james.slazas@consensys.net>; Fett, Nicholas
<NFett@CFTC.gov>
Cc: Bandman, Jeffrey <JBandman@CFTC.gov>
Subject: RE: Update - TAC Meeting

Hello, James - great to hear from you!

The best person to contact would be Jeff Bandman, whom I've copied on this
message. Jeff has served as Chairman Giancarlo's FinTech Advisor for the
past 4-plus months and would be in the best position to discuss next steps.

Hope I'll get a chance to catch up with you soon.

All the best,
Ward

-----Original Message-----
From: James Slazas [mailto:james.slazas@consensys.net]
Sent: Tuesday, May 30, 2017 10:05 AM
To: Griffin, Ward P; Fett, Nicholas
Subject: RE: Update - TAC Meeting

Ward,

Hope you are doing well and glad the blockchain lab has finally been put
into action! http://www.cftc.gov/PressRoom/PressReleases/pr7558-17
Congratulations.

We at ConsenSys would love to participate in any manner. Would you know who
to speak to? Also, happy to sync up to discuss what we have been doing with
other regulators and central banks.

Cheers,

James Slazas

ConsenSys Director of Financial Products
49 Bogart Street, Suite 22, Brooklyn, NY 11206 james.slazas@consensys.net /
USA Cell 323 309 6020
Skype: slazas1 Wechat: slazas

-----Original Message-----
From: Griffin, Ward P [mailto:WGriffin@CFTC.gov]
Sent: Monday, February 22, 2016 5:47 PM
To: James Slazas <james.slazas@consensys.net>
Subject: RE: Update - TAC Meeting

Thanks again, James. I tested the link this afternoon, and everything
seemed fine. But will have the slides uploaded and ready, just in case.

-----Original Message-----
From: James Slazas [mailto:james.slazas@consensys.net]
Sent: Monday, February 22, 2016 1:59 PM
To: Griffin, Ward P
Subject: RE: Update - TAC Meeting

Great. Here is the web address (b)(7)(E)   This will not
be on the blockchain but simulate the actual application. If IT could put
those 2 files on the desktop, it would just make it easier for the flow.
Thank you and I also connected with the DTCC, much appreciated

-----Original Message-----
From: Griffin, Ward P [mailto:WGriffin@CFTC.gov]
Sent: Monday, February 22, 2016 1:39 PM
To: James Slazas <james.slazas@consensys.net>
Subject: RE: Update - TAC Meeting

Thanks, James. The laptop with internet access should not be a problem --
if you'll send me the address, I'll ask our support staff to have it
uploaded and ready for you. And the PowerPoint will be uploaded as well, in
case there is an issue.

What would you like me to do with the ISDA Master and the public key?

-----Original Message-----
From: James Slazas [mailto:james.slazas@consensys.net]
Sent: Monday, February 22, 2016 11:19 AM
To: 'Salman Banaei'; Griffin, Ward P; sandra.ro@cmegroup.com;
rs@clearmatics.com; 'Robert Sams'; 'Brad Levy'
Cc: Anne.KleinGray@cmegroup.com; 'Fekrat, Bruce'; 'Andrew Keys'; 'Michelle
Russell'
Subject: RE: Update - TAC Meeting

Ward,

Looking forward to meeting everyone tomorrow.

It has been confirmed that the other application version where I don't need the test-net running, is functional so any laptop with internet access will work. I also attached a deck for the total return swap use case, just in case there is no internet access. It will obviously not be as fluid so hopefully there will be access.

PS there are 3 files: the deck, a public key and an ISDA doc.

Cheers,

James Slazas

-----Original Message-----
From: Salman Banaei [mailto:salman.banaei@markit.com]
Sent: Friday, February 19, 2016 10:11 AM
To: Griffin, Ward P <WGriffin@CFTC.gov>; sandra.ro@cmegroup.com; Robert Sams
(rs@clearmatics.com) (rs@clearmatics.com) <rs@clearmatics.com>; Robert Sams
(b)(6)   James Slazas
(james.slazas@consensys.net) <james.slazas@consensys.net>; Brad Levy
<brad.levy@markit.com>
Cc: Anne.KleinGray@cmegroup.com; Fekrat, Bruce (Bruce.Fekrat@cmegroup.com)
<Bruce.Fekrat@cmegroup.com>; Andrew Keys (andrew.keys@consensys.net)
<andrew.keys@consensys.net>; Michelle Russell <Michelle.Russell@markit.com>
Subject: Re: Update - TAC Meeting

Ward,

Please find attached Brad Levy's slide deck for the TAC meeting and Markit's accompanying written statement. I'll forward the written statement to Chris Kirkpatrick shortly as well. ?

Thanks,

Salman

B. Salman Banaei

Director
Regulatory Affairs
Markit

+ 1 347 324 8818

salman.banaei@markit.com
www.markit.com

_____

From: Griffin, Ward P <WGriffin@CFTC.gov>
Sent: Thursday, February 18, 2016 7:39 PM
To: sandra.ro@cmegroup.com; Robert Sams (rs@clearmatics.com)
(rs@clearmatics.com); Robert Sams (b)(6)   ; James Slazas
(james.slazas@consensys.net); Brad Levy
Cc: Anne.KleinGray@cmegroup.com; Fekrat, Bruce (Bruce.Fekrat@cmegroup.com);
Andrew Keys (andrew.keys@consensys.net); Salman Banaei; Michelle Russell
Subject: Update - TAC Meeting

Dear Sandra, Robert, James and Brad -

I hope that this note finds you well. With the rescheduled TAC meeting fast
approaching, I would like to run through a few items with you.

First, we are prepped for your arrival on Tuesday for the blockchain panel -
if you encounter any complications, please let me know.

Second, the agenda and schedule remain the same as the original meeting.
Again, we are very much looking forward to a robust discussion on Tuesday.
For convenience, I have attached the detailed agenda to this message.

Third, I would like to confirm whether you would like for us to submit a
lunch order for you. We will be hosting a pay-on-your-own luncheon for TAC
members and panelists at 1:15 pm, with boxed lunches from Corner Bakery for
$13, and we would love for you to join us. If you would like to order a
lunch, please complete the attached form and return it to me as soon as
possible. All moneys will be collected on the day of the meeting - cash
only, please.

(James and Andrew - I have your orders from last month - please just confirm
whether you would like the same orders submitted.)

Fourth, we plan to hold a meeting of the CFTC's interdivisional staff
working group on blockchain and digital currencies immediately following the
conclusion of the TAC meeting. The meeting is slated to run from 4:00 to
5:30 pm, and is intended to continue the blockchain discussion from the
meeting, but directly with CFTC staff. We hope that you will be able to
join for any or all of it - please just let me know if you would be willing
to do so.

And finally, with respect to the panel discussion itself, I would like to

make sure that everyone is on the same page viz. their presentations. To that end, would you please circulate amongst the group an outline or other materials that you plan to present? Also, if you plan to have a PowerPoint presentation, please send that to me as soon as possible so that out support personnel can load it into the system.

Thank you, again, both for your participation in the TAC meeting and for your flexibility surrounding the rescheduling of the January meeting. We are looking forward to the discussion to come on Tuesday.

Best regards,
Ward

Ward P. Griffin
Special Counsel to Chairman Timothy G. Massad U.S. Commodity Futures Trading Commission Three Lafayette Centre
1155 21st Street, N.W.
Washington, DC 20581

(202) 418-5425

ConsenSys (Jason Brett, Joseph Lubin, Amanda Gutterman, Vanessa Grellet, Igor Lilic, Patrick Berarducci) www.consensys.net	"ConsenSys is a venture production studio building decentralized applications and various developer and end-user tools for blockchain ecosystems, primarily focused on Ethereum."	[*Introductions and overview of LabCFTC*]
	Advertises as "largest Ethereum developer in the world." Useful from outreach perspective as well as for update on current DLT trends/initiatives. James has been involved in TAC as well.	**Notes on Ethereum Framework** • Ethereum provides a means to establish both public blockchains and private, permissioned blockchains. The software is the same, but can be installed in a publicly accessible server or a private one that is behind a firewall. • Ethereum offers scalability. Proof of work (Bitcoin) replaced by Proof of Stake, which increases throughput. Consensus mechanism is moving to sharding.
	ConsenSys had an introductory call with LabCFTC in June.	• 99% of Ethereum installations are private, permissioned networks, not public blockchains. • The structure of Ethereum is a "virtual machine." Joe Lubin explained that if the program runs on one node, then there is assurance it can run on all nodes of the Network.
	Joe Lubin who was one of the 8 founders/creators of Ethereum did most of the presentation. Joe began ConsenSys about 3 years ago to build infrastructure for the Ethereum ecosystem. Currently working on about 30 projects at the protocol level and	**Notes on UPORT:** UPORT is a self-sovereign identity tool. Actors control their identity and what is shared using the blockchain network. This model can be used by an organization or nation-state as well. • Government of Dubai as part of its Blockchain 20/20 Strategy.

	application level. Consensys also does consulting work with firms interested to use Ethereum.	• Land registry • Identity / KYC • State-issued currency How can LabCFTC help? How can ConsenSys participate? • Knowledge resource • Lead as part of a responsible industry • Advance public/social mission [details here?] • No-action to support live testing and data gathering • Set up blockchain at CFTC • Participate in a CFTC-sponsored sandbox ▪ Working with Dubai on smart cities (Microsoft/Deloitte). Enterprise ▪ Token differentiated from security (they had concerns with SEC) ▪ Consensys aims to drive adoption: (1) infrastructure for applications – music, crowdfunding (2) companies wanted assistance with blockchain (Fortune 500) →it is a public blockchain … there is a private/permissioned Version… ▪ Software can be configured privately behind the firewall… ▪ Proof of work; proof of stake (9 months); and then sharding the system (18 months)…. ▪ Privacy and confidentiality can be address in public versions, BUT That has not happened yet… ▪ Ethereum virtual machine – write a program on any system . . . By 2020 Dubai will have all government docs blockchain based: They can do proof of concept in a private network that can Eventually port to public…LAND, TITLE, REGISTRY, KYC, ID ▪ Self-sovereignty: people can create the identity (container). ▪ **Position: responsible use-cases for the industry…**

- **US POLICYMAKER DESIRE TO ADOPT BLOCKCHAIN (POC) IS ASK A LA DUBAI**
  →WHAT IS A SANDBOX IN THE US? SEC, OCC, FDIC OVERLAP . . . TEST IN THE UK (18 ALLOWED)
  *** DECENTRALIZED TOKEN EXCHANGE
  *** DERIVATIVE EXCHANGE (CAN WE TEST)
  **** 50 STATES IS AN ISSUE from regulatory perspective; WANT A SINGLE VOICE

  NEXT STEPS: deeper dive on tech?
- FIA Marketing: can use their channels…at a cost.
- Twitter / LinkedIn; email newsletter (Heather Vaughn).

Non Responsive Record