DSB TAC MEETING MINUTES

Date:	09 October 2019	Time: 13.00 – 15.00 UTC	Location: WebEx/Teleconference
Chairperson:	David Broadway		

1	**In attendance:**	**TAC Members** David Broadway, The IA (Chair) James Cowie, HSBC Nadav Krispin, JP Morgan Eugene Eltsufin, JP Morgan Shari Lines, Morgan Stanley Henrik Martensson, SEB Andrew Poulter, Standard Chartered Bank Chris Pulsifer, Bloomberg LP Zintis Rullis, Refinitive MTF Elodie Cany, Tradeweb Aanya Madhani, Simplitium David Bull, Refinitive Felix Ertl, BVI Lisa Taikitsadaporn, FIX Robert Stowsky, CFTC Eiichiro Fukase, JSDA	**DSB** Sassan Danesh (Designated DSB Officer - DDO) Andy Hughes (TAC Secretariat) Will Braithwaite (TAC Secretariat) Will Palmer (DSB CISO)
	Apologies	Marc Honegger (Sponsor) Tony Chau, UBS Michele Vuerich, SIX Group Service AG Rajkamal Roka, State Street FX Connect	
	Absences:	Souvik Deb, Citigroup Prem Ananthakrishnan, Credit Suisse Stephen Pond, Lloyds Bank James Brown, Rabobank Kimberly Cohen, State Street Bank Jimmy Chen, BGC Partners Ziv Yankowitz, Nex Martijn Groot, Asset Control Rocky Martinez, SmartStream Vincent Dessard, EFAMA Karel Engelen, ISDA Jim Northey, Independent Expert	

No	Topics (recording time)

1 Welcome (00:00)

The Chair welcomed both the TAC members and the public members and reminded the forum that only the TAC members can interact. The Chair advised the forum that the Sponsor (Marc Honegger) was unable to join the call today. The Chair handed over to the secretariat to undertake the roll call.

2 Roll Call (00:49)

AH (TAC Secretariat) undertook the roll call.

3   Agenda (01:29)

The Chair described the Agenda and asked the forum if there were any questions, none were received so the Chair moved on to the Governance topic.

4   Governance (02:37)

Slide 3 – Member Changes

The Chair welcome four people to the TAC. Robert Stowsky has joined as a new member representing the CFTC as an observer. The Chair also welcome the new members from three organisations who have changed their representatives. These were Nadav Krispin from JP Morgan, Rajkamal Roka from State Street FX Connect and Michele Vuerich from SIX Group Service AG.

[Ed. Please note that all membership changes have been approved by the DSB Board]

Slide 4 – 2020 Meeting Schedule

The Chair described the current charter estimate of 2 meetings per year, for the last two years the TAC has held two further meetings to focus on the industry consultation exercise. The plan for 2020 is to schedule these meetings up front noting a dependency on the DSB publishing the 2020 industry consultation dates.

The Chair noted that the TAC's current Charter expires 2 years after the first meeting (27th June 2018). The Chair felt that the forum would continue as is, but the members need to be mindful of this event next year.

The Chair then handed over to the TAC Secretariat to cover the 2019 review topics.

5   2019 Review (06:05)

Slide 5 – Topics Closed

AH (TAC Secretariat) thanked the members for their support with the topics which have been taken through to completion listed on slide 5. The key items that were mentioned were the 2nd UAT environment; FIX Certification exercise; 2019 Industry Consultation process and the data provision at weekends item.

Slide 6 – Bulletin Board Topics Published

AH (TAC Secretariat) also referred to the use of the TAC's bulletin board – the slide contains the full list of items covered (that were not covered by the previous slide). Items highlighted were the tenor calculator, the recent €STR release and the Dynamic Enumerations project which will be covered in the pack later. The TAC Secretariat then handed back to the Chair.

6   Topics under Consideration (09:48)

Slide 7 – Overview

The Chair said the having spent some time looking back at work done by the TAC in the year to date, the forum would now look at the items currently being considered by the TAC and those coming up for consideration over the coming year, specifically:

- The 2019 Industry Consultation process
- Ongoing initiatives
- Dynamic Enumerations
- TAC SSC activities (the Chair noted this was timely given events this week)
- BAU Activities

The Chair then handed over to the DDO for the Industry Consultation update.

Slide 8 – Industry Consultation Update (11:08)

The DDO described the set of functionality and actions relative to the TAC that the DSB has taken from the Industry Consultation exercise, these will form the 2020 book of work. The DDO advised that quite a few of

the functionality items are closely related to the Product Committee and there will need to be close collaboration between the two forums. The remaining items are more technical, relating to Cybersecurity, which is the biggest individual category of items coming out of the consultation process.

Slide 9 – CISO I (12:47)

The DDO advised that the CISO role is seen as key to all the Cybersecurity related activities being considered. The slide explains how the DSB views the CISO role in relation to both the TAC and the DSB management team. The CISO role is separate and independent of the existing management function – this was a key consideration, the aim being to provide a separate view which is not driven by delivery considerations. The CISO will have a single direct report - the Cybersecurity analyst. The DDO referred to the ISO 27001 and Secure SDLC standards, both of which were signed off by industry as part of the consultation process and fall within the remit of the CISO.

The DDO then introduced Will Palmer (WP) who will undertake the part time role of the CISO for the DSB. The DDO then handed over to Will to present the remaining CISO slides.

Slide 10 – CISO II & III (15:42)

WP (DSB CISO) described slide 10 which defines the roles of both the CISO and the security analyst. Will then moved on to slide 11 which shows that the CISO will liaise with all areas of the business to create a framework to protect the DSB against Cyber threats. There are two mandated tasks for 2020, the analysis for the ISO27001 accreditation and the current state of the software development lifecycle to see where this can be enhanced to address any gaps in 2021. WP (DSB CISO) advised that the ISO piece is not a small item and plans to build the framework from January 2020, to examine the maturity levels, and to arrive at a framework to demonstrate the gaps and to build a plan for 2021. The CISO role will need to be embedded in the centre of the all the DSB activities. The CISO will manage any security issues, their reporting and escalation, and bring the item to a close. The CISO office will also be involved in BAU activities that have an impact on cyber-security.

The Chair referred back to slide 9 noting the CISO has a dotted line through to the TAC. Another option might be to form another subcommittee populated by a subset of the TAC members specifically to focus on Cybersecurity. A third option is a peer committee which is populated by Cybersecurity specialists. The Chair requested feedback from the TAC members as to how the governance should be set up.

CP (Bloomberg) Felt it was important to have alignment to a committee to provide external oversight and that we should start with the TAC initially.

The Chair asked if we have sufficient knowledge across the TAC members?

CP (Bloomberg) suggested that we should assume that we have until we find we do not.

AP (Standard Chartered) Agreed.

WP (DSB CISO) advised that this approach makes sense certainly for 2020 noting that when we reach the remediation steps towards 2021 we may require more input from the member's Information Security teams.

HM (SEB) Asked what kind of profiles do you normally involve in this kind of work?

The DDO replied that most industry engagement on such matters has been with the Information Security teams of the relevant organizations. The new element here is ensuring that there is appropriate industry oversight, running this via the TAC will be the most cost-efficient option.

The Chair advised that time would be required to establish a new process, so agreed that we should start with the TAC which is established and then revisit later on.

HM (SEB) agreed but bear in mind that we may be a bit thin in terms of knowledge and expertise in this area.

SL (Morgan Stanley) Echo the feedback. On the security front it might be best to keep items internal as you do not want too much information in the public domain.

The DDO agreed and referred to later slides in the pack regarding penetration testing. The DSB is mindful to achieve transparency but balanced with exposing too much information relating to security. The DDO advised that as the TAC members received the draft material in advance there is an opportunity for the members to review the content and call out any concerns regarding exposing too much information before publication.

The Chair reminded the forum that the TAC SSC is held in private, with a level of transparency provided to the TAC, but the detail is not in the public domain.

CP (Bloomberg) Agreed with the approach. There is a fine line – people will need to trust that we are progressing with this, without necessarily being exposed to the details.

The Chair reminded the forum that the TAC is there to provide recommendations to the DSB Board, not to make decisions.

Slide 12 – 2020 Delivery Timelines (35:22)

WP (DSB CISO) described the approach starting 2nd Jan 2020, which will create the Terms of Reference for the "Priority 1" issues to the TAC by the 22nd January 2020 to be reviewed at the TAC meeting on the 29th January (if confirmed). The Secure SDLC Terms of Reference will then be finalised and that everyone is happy with the framework and that we are heading in the right direction, but this will not contain any technical details at this time but will have a maturity level noted against our processes and policies. The next deliverable is the Secure SDLC analysis which is due to be completed by 29th May 2020. After that the plan is to complete the Cybersecurity Framework analysis by 3rd October 2020, leaving the remainder of the year to undertake the gap analysis leading to the delivery of the ISO27001 ToR. WP (DSB CISO) noted that given the proposed resourcing levels this may have to move out slightly into 2021. WP (DSB CISO) invited the forum to ask any questions, there were none received so the forum moved on to the next topic.

Slide 13 – DR Testing Update I (38:30)

AH (TAC Secretariat) introduced this topic which was first discussed at the March TAC, restating the current position that the DSB has a high availability configuration across three availability zones in Ireland with a warm standby in North America in the event of a total failure of the entire AWS primary region. Since the creation of the DSB, this failover event has not been tested with industry. The TAC previously agreed that this was something that should be done and a proposed approach was put forward, initially testing in UAT.

Slide 14 – DR Testing Update II (39:39)

The team have been working through the proposed steps and have engaged the TAC further via the bulletin board. One of the findings was that industry have not connected directly to the UAT environment in North America, so we wanted to introduce a way for industry to validate that they can connect. The DSB sent out a revised notification on the 12th September and this was summarised on slide 14. There are now three key phases; 1) A network connectivity phased; 2) An application level test; 3) Failover test (date tbc)

Slide 15 – DR Testing Update III (41:29)

AH (TAC Secretariat) reminded the members of the original approach recommended updates to the TAC after each step, but with a hard gate in place to engage with the TAC before moving to a real production failover. There were a number of questions for the TAC's attention on slide 15:

Q1 What is the minimum level of user participation that we need engaged in this process?
AH (TAC Secretariat) highlighted the loss of access to the UAT next release environment during the failover period, but clarified that this would not affect the as-production UAT environment (the TAC had previously advised that this should only be stood up in the primary site).
15 power users (20%) population, was initially proposed
AP (Standard Chartered) Advised that providing that communications go out to everyone then this would be a suitable level.
Q2 Does the TAC agree that the DSB should send out a further notification to industry reminding them of where we are in these phases?

AP (Standard Chartered) Agreed

AH (TAC Secretariat) advised that the number of connectivity request have been extremely low, so keen to get engagement, but also that we should not proceed if we do not achieve a representative number of users.

HM (SEB) Asked if the DSB think that they will achieve these targets?

AH (TAC Secretariat) responded that we would hope to reach these levels, but feel given that the responses so far that this is an aggressive target.

HM (SEB) Advised that we will need to communicate this.

CP (Bloomberg) Asked why customers would need to do anything at all as from a customer perspective, they shouldn't really be aware that DR has been invoked.

AH (TAC Secretariat) agreed, and for a number of organisations this should be the case. However, there are some organisations which are unable to use the aliases we provide, so when we change what the aliases point to these users will not automatically move to the secondary region. So we are trying to raise awareness of that.

CP (Bloomberg) clarified that for those who are operating at the IP address level, they would need to update the IP address entries to target the North American region.

AH (TAC Secretariat) agreed and added that there was also an element of confidence building gained when users confirm that they are able to see the North American environment.

Q3 When should we undertake Phase 3?

AH (TAC Secretariat) reminded the members of the November release and also the proposed release in March 2020. On this basis we felt we should target post Q1 2020, and have suggested 6th April 2020.

As there was no feedback, the AH (TAC Secretariat) suggested that barring any objections the DSB will work towards a Phase 3 start date of the 6th April 2020.

Q4 Are the members happy to continue using the TAC Bulletin Boards for the further updates?

The Chair advised that this is most important for the users who will be impacted and will have to implement a change in their own implementation.

Action: TAC Secretariat to reach out to the Technical Support team to see if we can identify the population who directly access the DSB's IP Addresses.

CP (Bloomberg) Agreed that this was a good idea, but also worth improving the communication on this subject so people are clear what is coming down the pipeline.

Q5 ToTV DR Capability

There has been a lot of focus on the ToTV service mainly due to the plans in the event of a no deal Brexit. While the ToTV service is implemented across multiple availability zones within the primary AWS region it doesn't have a DR capability in North America like the ISIN service. This is due to ensuring costs are kept to a minimum and the fact that this is not a regulator mandated service.

Given the focus on DR testing, we wanted to ask the TAC if they agree with this approach?

SL (Morgan Stanley) Said that an 8 week period without a ToTV service would not work well with a run up to Brexit. However, Brexit dates are not yet confirmed.

The DDO considered using the as-prod environment, but we would need to deploy the next release version of ToTV into this environment which is confusing and could lead to issues. The DDO suggested that we plan on the current basis and use the TAC meeting in January as a checkpoint.

CP (Bloomberg) confirmed that the approach of not having a DR capability for TOTV in North America was acceptable, but we can't be in a position where there is no ToTV service available during this period of testing.

Slide 16 – Dynamic Enumerations I (01:00:04)

AH (TAC Secretariat) provided the background that the TAC members were approached in September with a paper and two key questions. Unfortunately, there wasn't time to undertake the analysis in time for the draft paper, so a late update was sent out to members yesterday. The update included three extra slides

which summarised the 14 responses received from the TAC members and proposed a way forward based on that feedback. It also posed a third question that we need to cover.

Slide 17 – Dynamic Enumerations II (01:01:08)

The AH (TAC Secretariat) covered the first question from the PC which was how long should the DSB run with two versions of the product template for? This is considered a breaking change so the DSB is obliged to provide at least 90 days-notice. There were varying opinions on the duration from the members, ranging from 2-3 months to "forever". The latter response was raised by a member who has to make software changes to accommodate the new format – if the old format was left in situ then they would not have to change.

The AH (TAC Secretariat) presented the recommendation derived from the responses which was to provide industry with 12 months-notice from the point when the new templates are made available in production.

SL (Morgan Stanley) Agreed – 6 to 12 months seems to be correct.

AP (Standard Chartered) Agreed – 6 to 12 months seems correct.

The AH (TAC Secretariat) asked if there were any objections with a recommendation to make this period 12 months?

There were none received so we moved on to the next slide.

Slide 18 – Dynamic Enumerations III (01:03:38)

AH (TAC Secretariat) covered the second question that the PC would like to focus on the three most volatile enumerations of Currency Code, Reference Rate and Underlying Instrument Index. Does the TAC agree with this approach as moving just three enumerations into a normalised format would leave the rest alone creating a hybrid solution? An alternatively approach is to consider all enumerations in one go.

AH (TAC Secretariat) advised that 5 of the responses favoured a big bang approach, one other member suggested that we could move to all in a phased approach but countered this with a caveat that they would want this process to be timeboxed.

The recommendation here is to go back to the PC recommending that we consider converting all enumerations in the first deliverable.

CP (Bloomberg) We need to minimise the number of times we change something and hence something going wrong – so prefer all at once. Also, advises that he was on the shorter side of the timeline with respect to Question 1.

AH (TAC Secretariat) asked if there were any objections if we return to the PC with the recommendation to adopt all enumerations for this project? There were no objections received.

Slide 19 – Dynamic Enumerations III (01:06:56)

AH (TAC Secretariat) described the new question which relates to one of the dynamic enumeration requirements around achieving an 18 to 36-hour turnaround time to deliver enumerations changes. The example used was the recent €STR release which itself was the subject of a TAC bulletin board topic to seek agreement to implement with no UAT.

The enumerations often require validation of user-supplied data and this has to be implemented at run time. This requires changes to the JavaScript enricher files which accompany the product templates. The concern that has been raised is that we are having to edit JavaScript within this time window which is more involved than simply adding a value to a list. The mitigation around this risk is to run the existing regression testing and to add manual test cases to cover the specific cases. These additional cases will be built into the regression test pack for future regression tests.   On this basis AH (TAC Secretariat) asked the members if they were happy with this approach, and specifically for the changes to be applied to production and UAT at the same time, referred to as a 0-UAT period.

The Chair asked if there were any objections to the approach detailed on slide 19?

CP (Bloomberg) said that he was concerned that there is no time in UAT for users to test. Changes are written to minimise the calls to anna-dsb which we know will fail – so we try to incorporate the same validation changes on our side to achieve this. In order to make this works there needs to be some amount of UAT.

The DDO advised that where possible we should aim to give as much notice as possible and only go down the minimum 18 to 36 route where there was some kind of emergency.

CP (Bloomberg) said that this approach sounds much better. The concern is that dynamic enumerations is a really good concept but introduces a risk that the validation questions can fall through the cracks. Hence, need to be clear that you do need new validation even though the templates are not changing and that the new validations are not lost.

The TAC Secretariat then handed over to the Chair to provide the TAC SSC update.

Slide 20 – TAC SSC Update (01:15:04)

The Chair provided an overview of the TAC SSC formed out of 14 members from the existing TAC membership, meeting every two months to take forward the technology related work around the UPI. The SSC has been looking at the strategy requirements for the DSB to develop its UPI solution and has been working on a report. The current status is we are about to complete an interim report to be submitted to the full TAC for review and comment. This will then be sent to the DSB Board, we will then devise the Terms of Reference to implement the UPI service. The Chair noted that the FSB has advised the UPI solution should be rolled out in various jurisdictions over the next three years. This now provides a timeline to work to. The Chair referred back to the earlier notification in June where ISO will be asked to develop a standard for this, so we now have a window in which this work needs to happen.

TAC members should expect to see a draft version of the interim report soon for comment before we take it forward into the next stage.

The Chair invited any questions on this topic, there were none received to the Chair handed back to the TAC Secretariat to cover the BAU activities.

Slide 21 – Software Version Upgrade Policy (01:20:034)

AH (TAC Secretariat) mentioned that this topic was first discussed at the meeting in March. The plan is to make this a part of the standing agenda for the TAC to ensure transparency with respect to the software versions. The slide highlights 3 software components which need to be upgraded.

1) The Apache SOLR version has fallen behind our recommended policy of keeping within one major version and it has also now past its end of life date. The recommendation is that we look to getting this upgraded as a next step.
2) The Mongo DB version is approaching its end of life date and we aware of a two-tier process as we have to go via version 3.7 whose file format is not backwardly compatible, before moving to the target 4.2.
3) Finally, the Apache Kafka is also falling behind our own recommended policy.

We are proposing to take these items through the BAU workstream to get these scheduled, we will take an action to provide a further update at the next TAC meeting.

AH (TAC Secretariat) asked if there were any questions, there were none raised so moved on to the next topic.

Slide 22 – Penetration Testing Update (01:22:34)

AH (TAC Secretariat) advised that this was also a topic discussed in March. To recap, the GDS penetration test was undertaken in December 2018. There were 6 items highlighted in the report for the DSB's attention, this generated 7 internal items for tracking. Two of these are outstanding, the reason for this is that they are linked to the release of internal components, the release has been delayed due to other industry priorities (Field 41 changes and the FIX release). We have included this software release in UAT for release prior to the December change freeze period. There were two items which we are dependent on a vendor but affects UAT only (FIX Certification).

We are looking to have these items resolved in time for the 2019 penetration test which is scheduled for early December, so that this will prove as final confirmation that all of the issues originally identified have been resolved. AH (TAC Secretariat) asked the members if they have any questions on this topic - none were raised.

The DDO asked the members to look at the status column in the table. Most of the items have been deployed in production and then shared here after the changes have been applied to production. This ties in with the earlier discussion regarding transparency around security items. The DDO welcomed all feedback on this topic either at the forum, via the bulletin board or direct mail to the TAC Secretariat.

CP (Bloomberg) Advised that this also ties back to the CISO discussion – we need to build trust –disclosing this information after it has been actioned should build that trust.

Slide 23 – ISIN Analysis Update (01:29:45)

AH (TAC Secretariat) provided an update on the ISIN Analysis topic which came from the 2018 consultation process and was brought to the TAC in March. A further bulletin board post was created after the meeting. The approach recommends taking forward 3 of the 7 items initially. This item has been delayed due to other priorities, as listed in the penetration testing topic. We will escalate the priority of this item with a view to progressing in Q4. We will take an action to provide a further update on progress at the next TAC meeting.

The TAC Secretariat then handed back to the Chair.

| 7 | **AOB (01:31:48)** |

The Chair highlighted two specific actions from the meeting:

Making sure in the first meeting next year we use this as checkpoint for the ToTV service disaster recovery and for TAC members to provide feedback on the level of detail provided regarded penetration testing

The Chair invited members to raise any other items:

SL (Morgan Stanley) advised that she was looking into the post term-of-contract analysis – a short description was posted on the bulletin board as Morgan Stanley are observing a difference in ToTV hits post term of contract because of the new ISINs. This is currently being investigated.

AH (TAC Secretariat) advised the bulletin board entry was taken to the DSB Secretariat and a reply was posted to the original bulletin board article. In terms of next steps, this is primarily a product issue so should be raised with the Product Committee as a next step.

CP (Bloomberg) this is a critical concern that we have to be aware of - despite the guidance being offered, some people will still be doing it wrong, so we need to minimise the negative outcome of this.

The Chair asked SL if she would be willing to join a future PC meeting to discuss this if that were something the PC would be willing to entertain.

SL (Morgan Stanley) agreed.

CP (Bloomberg) advised that this problem could last for a while as there are plenty which go well into the future.

SL (Morgan Stanley) Advised that the regulators may see a dip in products which are reporting as ToTV.

The DDO advised that the DSB would take an action to raise this issue with the Product Committee.

The DDO had two related observations:

The cause of this issue is the addition of a new data element to the ISIN record. This may well occur again in the future, so we need to think about this carefully as we may be setting a precedent

We may have the same problem in the future with the UPI, so we need to think about this strategically, so we are prepared for the future

CP (Bloomberg) Advised that anyone in the system could cause a mismatch, it is a complicated problem, so we do need to agree a model for resolution.

The Chair raised one additional topic – the TAC charter runs for two years from the 27th June 2018, so the charter for this committee expires next June. The Charter will need to be renewed by the board, so there is an opportunity for TAC members to provide any feedback. Action to include an item on the agenda for January 2020.

The Chair advised that we need to pin down the meeting dates for 2020 and referred to slide 27 noting the proposed first meeting date of the 29th January 2020. The rest will be scheduled once the DSB has defined the industry consultation timeline.

The Chair thanked the TAC members and industry participants for attending and thanked the DSB for facilitating the forum. The Chair then closed the call.

8	**Actions**

The following new actions were recorded:

- TAC Secretariat to reach out to the DSB Technical Support team to see if we can identify the population who directly access the DSB's IP addresses instead of using the network alias.
- TAC Secretariat to provide an update on the plans for software version levels at the January 2020 TAC meeting
- TAC Secretariat to provide an update on the ISIN Analysis progress made at the next TAC meeting.
- Raise the question from *SL (Morgan Stanley)* regarding ToTV reporting post the introduction of the field 41 changes, with the PC.
- TAC Secretariat to ensure that the January 2020 meeting is used as a checkpoint for the ToTV Disaster Recovery discussion item
- TAC members to provide feedback on the level of detail provided regarded penetration testing
- TAC Secretariat to include a TAC Charter agenda item for the January 2020 meeting.

Respectfully submitted,

DSB Designated Officer.