

# DERIVATIVES SERVICE BUREAU

# TECHNOLOGY ADVISORY COMMITTEE

26 October 2022

MEMBER FINAL

# Agenda

- **Governance**
  - Competition Law Reminder
  - Roll call
  - TAC Member Changes
  - Third Charter Term
  - Change Freeze Update
  - Action Update
- **Operational Status**
  - 9<sup>th</sup> August Outage Update
- **Existing Topics**
  - IC 2021 Q2 Search Only User
  - Basic Authentication Update
  - Software Upgrades
  - Disaster Recovery Testing
  - IC 2021 Weekly Snapshot
  - Dynamic Enumerations
  - CFI 2019
  - 2022 POAP
  - Machine Readable Validation
- **New Topics**
  - Machine Executable Regulatory Reporting
  - Industry Consultation Update
  - Global Agile Architecture
- **UPI Update**
  - Baseline
  - Upscale
- **CISO Update**
- **Subcommittee Updates**
  - TAC Strategy Subcommittee (SSC)
- **AOB**
- **Appendices**
  - A - TAC Members
  - B - Meeting Schedule
  - C - Bulletin Board Items
  - D - Annual Checklists
  - E - Actions

## Governance I of VI - Competition Law Reminder I of II

The purpose of this protocol is to remind attendees of Derivatives Service Bureau (DSB) Limited (“DSB”) Technology Advisory Committee, that all discussions at such meetings are subject to the application of EU, UK and other applicable national competition law (“Competition Law”).

Individual attendees are responsible for observing the requirements of Competition Law and should make themselves familiar with their legal obligations and their own organization policies.

The DSB is committed to compliance with Competition Law and advises that TAC participants follow the guidance set out below in order to ensure that all meetings remain in compliance with Competition Law.

1. A meeting agenda will be circulated in advance of a meeting. Any objections to, or potential concerns about, the proposed agenda in relation to Competition Law compliance should be raised prior to the meeting if practicable
2. Attendees must stick to the prepared agenda during the meeting and avoid discussion about other topics
3. Attendees must not seek, discuss, communicate or exchange any commercially or other business sensitive information about their organization or relating to competitors (whether before, during or after meetings). This includes, for example, any non-public information relating to prices, costs, revenues, business plans/marketing activities, individual terms and conditions, risk appetite or any other information which is likely to reduce strategic uncertainty in the market (i.e. which might result in less intensive competition than would normally occur)
4. Attendees must not reach any sort of agreement or understanding that is unlawful due to competition law (e.g. unlawful horizontal agreement, unlawful vertical agreement)

## Governance I of VI - Competition Law Reminder II of II

5. The TAC Secretariat will take minutes of the meeting, and supply these to each attendee in due course.
6. If the Chair considers that a discussion at the meeting may be inappropriate from a Competition Law perspective, he or she shall raise an objection and promptly bring that part of the discussion to an end. If another attendee, or the DDO, is concerned about a discussion from a Competition Law perspective, he or she shall bring it to the attention of the Chair, who will promptly bring that part of the discussion to an end. If other attendees attempt to continue that discussion, the Chair shall bring the meeting to an end. Every attendee is allowed to immediately leave the meeting in such situations. All such situations must be properly recorded in the minutes.
7. The minutes of the meeting must subsequently be read and approved by the attendees. If any matter discussed is not recorded in the minutes, or is recorded incorrectly, any attendee may raise an objection in writing and request an amendment.
8. Similar principles should be observed for any group email exchanges or other online group discussions operated by DSB, including those pertaining to TAC matters.

We remind attendees that breaching Competition Law has serious potential consequences for them as individuals and their organizations. Such consequences may include heavy fines, liability to pay compensation to affected individuals and businesses and, in certain cases, the imposition of criminal penalties, director disqualification orders and disciplinary action.

## Governance II of VI – Roll Call

The DDO will undertake the roll call.

## Governance III of VI – Member Changes

Since the last TAC meeting the DSB Board has approved the following TAC membership changes:

- Atara Sender-Stein has replaced Nadav Krispin as the member for JP Morgan. Atara joins the TAC as Vice President, Software Engineering.

We would like to welcome Atara to the TAC and would like to extend our thanks to Nadav for his contribution to the TAC.

## Governance IV of VI – Third Charter Term

This meeting marks the start of the TAC's third charter term. We are pleased to announce that Chris Pulsifer, the TAC Chair, has agreed to continue in his role for a further charter term. As before, the new term will run for a period of two years.

## Governance V of VI – Change Freeze Update

The DSB recently announced<sup>1</sup> that it will enter its annual year-end change freeze period at 12:30pm on Sunday 4<sup>th</sup> December 2022. This period will run until 00:30AM on Sunday 15<sup>th</sup> January 2023.

<sup>1</sup><https://www.anna-dsb.com/download/2022-10-10-notification-year-end-change-freeze-production-environment/>



## Governance VI of IV - Action Update

Action	Description	Update	Slide#
2111-002	CISO to produce a report relating to the 2019 consultation paper items that can be shared publicly.	CISO to provide an update	N/A
2203-001	DSB to hold internal discussions with Technical Support as to the best approach to failing back	Propose to close	15
2203-002	DSB to add an agenda item to the Strategic meeting to discuss optimising the existing 4-hour RTO duration	Closed, included on slide 16 of the strategic pack	N/A
2203-003	DSB to provide the TAC members with further updates on establishing the reverse flow including any costs	Propose to close BB update provided 3/10/22	15
2203-004	TAC Secretariat to arrange for the Basic Authentication change to be progressed, ensuring Industry are given a minimum of 90-days' notice	Propose to close	13
2203-005	DSB to reach out to the Orchestra contacts provided to understand if the existing master repository definition can be expanded to support additional validation rules.	Further update in the pack	22

# Operational Status – 9<sup>th</sup> August Outage I of II

## **Background:**

- On Tuesday 9<sup>th</sup> August 2022 the DSB experienced a loss of the OTC ISIN service
- This was classified as a Severity I incident with a duration of 4 hours and 9 minutes
- The Root Cause Analysis (RCA) document was published on Tuesday 16<sup>th</sup> August 2022 which identified the root cause as a failure in DSB’s change management process

## **Update:**

- The RCA contained six corrective actions. The update on those actions is as follows:

#	Action	Status	Completion Date
1	Immediate suspension of ANY change in the Production environment. This will remain in place until the completion of Action item “5”.	Completed	09/08/22
2	Post Incident KPI review	Completed	10/08/22
3	Publication of the RCA	Completed	16/08/22
4	Review the email notification distribution system	Completed	26/08/22
5	Review of the existing Change Management Processes within both the MSP and SPP, to address not only the findings of the RCA, but a review of all aspects of the Change Management Process in both organizations. This will include the interaction points between the MSP and SPP processes.	Completed	02/09/22
6	TAC review of the RCA	Open	26/10/22

## Operational Status – 9<sup>th</sup> August Outage II of II

### Update Continued:

- Change freeze imposed, including DSB management approval required on all Service Provision Partner (SPP) tickets
- Manual process established to review exceptions from the email notification system (noting some are valid)
- Review of the existing change governance process completed
- New Terms of Reference produced for the revised Change Governance Process
- Formal weekly change board established on 21<sup>st</sup> September 2022
- Change freeze lifted, however secondary SPP check remains in place
- Further review of email notification settings to be conducted to reduce manual exceptions



## Existing Topics – IC2021Q2 – Search Only User Update

### **Background:**

- A progress update was provided in the March meeting regarding the new Search Only user role which had completed development/testing and was at the point of being deployed into UAT

### **Update:**

- The role was implemented into UAT on 4<sup>th</sup> April 2022, a potential client worked with the DSB to test the role
- Testing was successful so the changes were promoted to Production on 24<sup>th</sup> April 2022
- Since, then we have one Search only User in Production and three users trialling in UAT

## Existing Topics – Basic Authentication Update

### Background:

- At the March meeting, the TAC approved the update of the DSB’s ReST RoE to adopt RFC-7617 standards by enforcing the use of ‘Basic’ in the authorisation syntax (see table below)

### Update:

- 26/06/2022 - Users were notified of this change and were provided with an updated ReST Rules of Engagement (RoE)
- 06/08/2022 – The change was made available in the UAT environment
- Note: The Production environment currently supports both versions –users can make their changes and implement them in production prior to the production release date
- The DSB is actively monitoring access to both the UAT and Production environments by users using the old format
- 06/11/2022 –Production/UAT2 implementation after which the old format will no longer be supported (breaking change)

Feature	RFC 7617	Current DSB ReST ROE
Syntax (in http header):	Authorization: <b>Basic</b> Base64(User:Password)	Authorization: Base64(User:Password)
Details:	<p>If the user agent wishes to send the user-id "Aladdin" and password "open sesame", it would use the following header field:</p> <p>Authorization: <b>Basic</b> QWxhZGRpbjpwVGVuIHNlc2FtZQ==</p>	<p>Users should attach the authentication parameters to each of the REST methods’ header with:</p> <p>key = “Authorization” value = base64(username + “:” + password)</p> <p>The username and password are concatenated with a colon separator and encoded in <u>base64</u></p>

## Existing Topics - Software Upgrades

### Software Upgrades 2022:

Further to the update provided in the March meeting the following components have been updated:

- Tomcat 3 Apr 2022 (Fipro/Cordra Upgrade)
- Elastic Search 17 May 2022

The TAC Bulletin Board topic has been updated to reflect the latest position (see Appendix D1)

## Existing Topics – Disaster Recovery Testing

### **Background:**

During the March 2022 TAC meeting, the TAC members discussed the approach for the production DR test and recommended failing over from primary to secondary for a period of time. The members discussed the additional risk this presented, with the DSB's current approach only configured to support data replication from the primary to secondary site.

### **Update:**

Since the meeting, the team have been working on establishing a “reverse-flow” capability to allow the DSB to send data from North Virginia to Ireland when North Virginia is the primary site. This is only anticipated to be relevant in a DR test, as in the test Ireland will still be available. However, in a true DR situation, it could also be used assuming the original issue that took the primary site offline has been resolved.

The team have also been progressing the ToTV DR option. As a result, the DSB consulted the TAC regarding undertaking a further short DR test in the UAT environment prior to scheduling the Production DR test. A [notification](#)<sup>1</sup> was sent to industry on the 6<sup>th</sup> October 2022 advising of the additional test.

The dates for the UAT test are:

- Failover: 19<sup>th</sup> November 2022
- Failback: 3<sup>rd</sup> December 2022

Assuming the test is successful, the DSB will promote both the ToTV DR functionality and the reverse flow capability to production. This will take place after the change freeze.

We will then discuss scheduling of the Production DR test, which we are targeting early 2023.

The DSB, as a key supplier to industry, recognises the requirement to provide evidence of an annual production DR test.

<sup>1</sup><https://www.anna-dsb.com/download/2022-10-06-notification-dsb-uat-disaster-recovery-invocation/>

## Existing Topics – IC2021 Weekly Snapshot

### **Background:**

At the meeting in March 2022 the TAC recommended the merging of two similar requirements resulting in an overall saving. It was noted that the Technical Design had been completed and the work was targeted to start in April 2022 with a production release at the end of Q2/start of Q3.

### **Update:**

- The weekly snapshot development was been delayed until Q3 but is currently in flight. We expect to implement this in the UAT environment in Q4, the feedback from the developers is that the size of the snapshots will be significant so we will require a test phase with the users to ensure no issues with the consumption of a very large data set.



## Existing Topics – Dynamic Enumerations Update

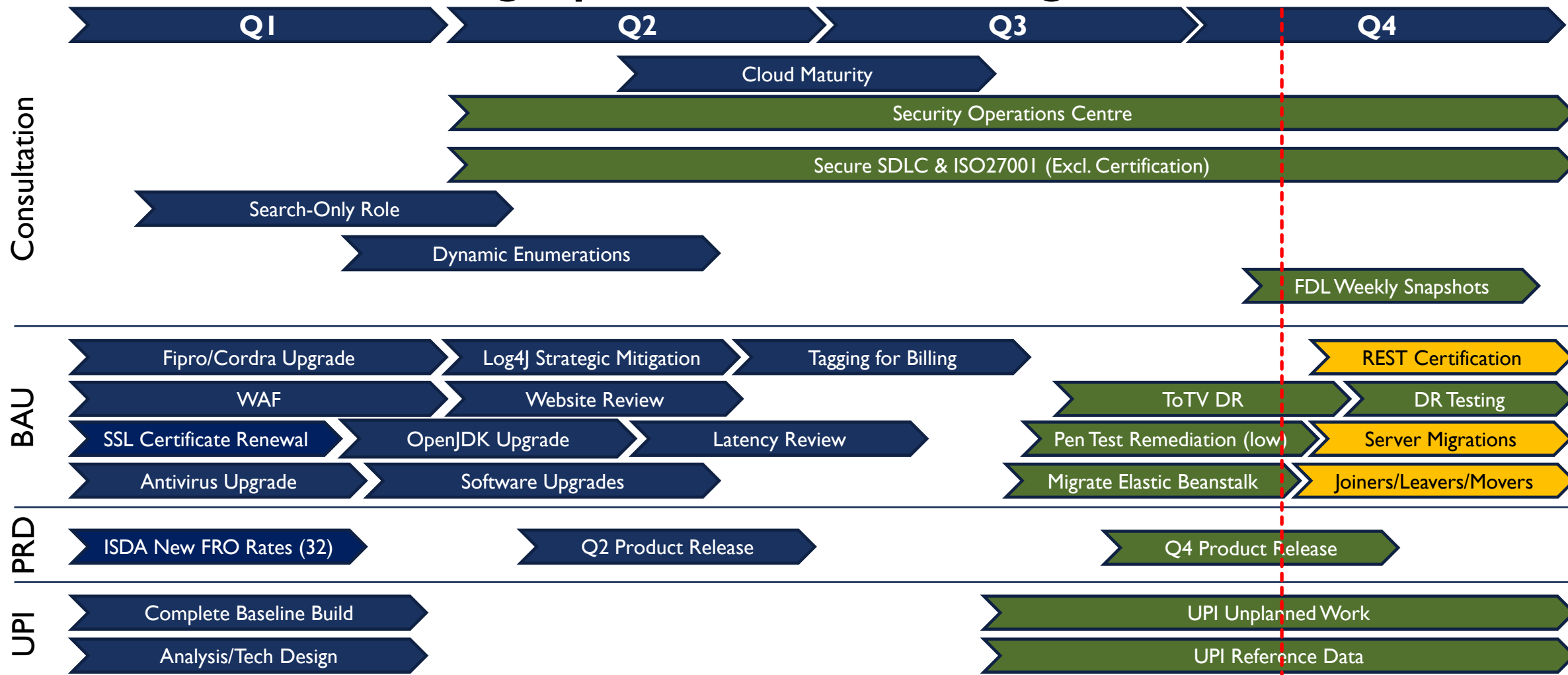
### Update:

- The original production release date of 5<sup>th</sup> June 2022 was postponed at the request of users who required more time to integrate the changes with their systems
- The changes were implemented on 26<sup>th</sup> June 2022
- The DSB system now consumes the normalised templates allow shorter lead times for enumeration changes
- The DSB will maintain the denormalised version for a period of 12 months as previously agreed with the TAC
- The new UPI templates will adopt the same approach as the ISIN by introducing the normalised codesets for the 5 most volatile enumerations

## Existing Topics – CFI 2019

The regulators have provided feedback to the DSB on the proposed approach to CFI 2019 presented to them by the DSB. As a result of the feedback received the DSB is undertaking further analysis into the approach. A further update will be provided to the TAC via the bulletin board on completion of the additional analysis.

## Existing Topics – 2022 Plan on a Page



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## Existing Topics - Machine Readable Validation I of III

### **Background:**

In October 2021, the DSB met with the ROC's Oversight Arrangements Group (OAG). One item that came up during the discussion was the DSB's approach to validation rules relating to the JSON templates.

This topic was discussed with the TAC members at the March 2022 meeting.

The DSB's validation rules are documented and available to all users on the Website. In terms of implementation, some of the rules are implemented in the JSON templates themselves, and industry tooling can be used to test that user messages conform to these rules.

The remaining rules are implemented in the DSB's JavaScript code. These are exercised when users send the DSB messages. However, if a user wants to test these rules before sending a message to the DSB, then they must implement the rules in their own software.

The OAG provided the DSB with some examples of how the DSB's current approach could be modified to make the full set of rules available to users without having to implement any bespoke software.

# Existing Topics – Machine Readable Validation II of III

## **Background Continued:**

The DSB publishes product documentation via the DSB’s website in <https://www.anna-dsb.com/products/>. An Overview Document<sup>1</sup> is provided which acts as a manual for the DSB’s product definition templates as well as the product templates themselves. The manual includes details of the validation that is adopted.

For this topic, we will refer to section 8.18 Equity Options: Strike Price Validation, which can be seen opposite, as well as the Equity Option Single\_Name request template.

The validation is broken out into two parts:

- JSON Template Validation
- JavaScript Validation

Both parts are executed when a user sends a message into the DSB. Users can validate their own message before sending the message to the DSB, however, this will only validate the rules implemented in the JSON template. If users want to validate the rules implemented in the JavaScript validation, then they must follow the documentation and implement these rules themselves.

In a recent discussion, the Regulators have asked if the DSB could prevent end users from having to implement these rules themselves. As part of this we considered extending the DSB’s master definition. The following slide goes into more details.

### 8.18 Equity Options: Strike Price validation

For Equity Option Basket/Single Index/Single Name:

Strike Price value is validated depending on the Strike Price Type:

- DECIMAL - 18,13 if the price is expressed as monetary value.
- DECIMAL - 11,10 if the price is expressed as percentage.
- DECIMAL - 11,10 if the price is expressed as yield.
- DECIMAL - 18,17 if the price is expressed as basis points.

Strike Price Currency is derived when Strike Price Type is set to 'Monetary Value'. For other price types, Strike Price Currency must not be present on the ISIN record.

For Equity Option Non-Standard, Cross-Asset Option and Cross-Asset Other:

Strike Price value is validated depending on the Strike Price Type:

- DECIMAL - 18,13 if the price is expressed as monetary value.
- DECIMAL - 11,10 if the price is expressed as percentage.
- DECIMAL - 11,10 if the price is expressed as yield.
- DECIMAL - 18,17 if the price is expressed as basis points.
- For 'No Price' - 'Strike Price' must be 'PNDG'.

Strike Price Currency is available for an input when Strike Price Type is set to 'Monetary Value' OR 'PNDG' and is not be available for an input when Strike Price Type is set to 'Percentage', 'Yield' OR 'Basis Points'.

For Equity Option Non-Standard: If Strike Price Currency is not provided by the user and Strike Price Type is set to 'Monetary Value', 'Strike Price Currency' is derived from 'Notional Currency'.

For Cross-Asset Option and Cross-Asset Other: 'Strike Price Currency' is a mandatory user input if Strike Price Type is set to 'Monetary Value'.

<sup>1</sup><https://www.anna-dsb.com/download/dsb-prod-product-definitions-pdf/>

## Existing Topics – Machine Readable Validation III of III

### Orchestra Files:

The DSB maintains its product definitions in machine readable form in a FIX Orchestra repository. The JSON templates are produced by a transformation process run against the Orchestra repository.

Since the creation of the DSB's FIX Orchestra Repository, the repository technology has progressed significantly. The problem example that was discussed in March can now be represented in Orchestra. For example, the rule that was presented in previous slide may now be coded in Orchestra as:

```

<!-- the field type is enumerated to: BasisPoints, MonetaryValue, Percentage, Yield, PNDG -->
<fixr:fieldRef id="20020" instanceName="StrikePrice">
  <fixr:rule name="Decimal number 18.13" type="decimalNumber 18.13" presence="required" >
    <when>StrikePriceType StrikePriceType == ^MonetaryValue</when>
  </fixr:rule>
  <fixr:rule name="Decimal number 11.10" type="decimalNumber 11.10" presence="required" >
    <when>StrikePriceType == ^Percentage || StrikePriceType == ^Yield</when>
  </fixr:rule>
  <fixr:rule name="Decimal number 18.17" type="decimalNumber 18.17" presence="required" >
    <when>StrikePriceType StrikePriceType == ^BasisPoints</when>
  </fixr:rule>
  <fixr:rule name="Strike Price forbidden" presence="forbidden">
    <when>StrikePriceType == PNDG || not exists StrikePriceType</when>
  </fixr:rule>
</fixr:fieldRef>

```

### **Next Steps:**

As a next step, the DSB could consider adding these rules to its Orchestra Repository which itself could be exposed to users. However, it may not be possible to further extend this transformation into JSON, so other solutions may need to be identified.

*TAC Question: Do the TAC members see benefit in following this approach and do the members think this approach could be used to automatically generate the logic which users are currently having to write manually?*

# New Topics I of III – Machine Executable Regulatory Reporting I of IV

## Our Involvement in Machine Executable Standards

- The ROC has requested us to explore the creation of **machine executable data validation rules** for derivatives reference data, based on **open-standards**
- The implementation of our **common data dictionary** already uses an open source standard from the FIX Trading Community called **FIX Orchestra**  
<https://www.fixtrading.org/standards/fix-orchestra/>
- Given our close involvement with ISO, we have started to explore the concept of **FIX Orchestra as an ISO standard**
- We have started to engage our Industry Representation Group to deliver on the ROC's request



# New Topics I of III – Machine Executable Regulatory Reporting II of IV

## FIX Orchestra Introduction

- Orchestra is an **open-source standard** for defining in a **machine-readable** manner the **workflows** and the **specifications** for communication between counterparties. I.e. the **rules of engagement**
- **ISO standards** form the building blocks of Orchestra. E.g. ISO 11404, ISO 15836, ISO 8601 etc.
- Orchestra is a **specification** and not an implementation. Multiple vendors can compete on implementations on an equal footing.
- Orchestra is **inherently more secure** than ‘*Turing complete*’ approaches that rely on single vendor implementations. E.g. see: [https://resources.sei.cmu.edu/asset\\_files/WhitePaper/2022\\_019\\_001\\_875314.pdf](https://resources.sei.cmu.edu/asset_files/WhitePaper/2022_019_001_875314.pdf)
- Orchestra is already **widely supported** in the capital markets for electronic trading workflows
- Orchestra is currently maintained by the FIX Trading Community. FIX may be amenable to **migrating Orchestra to ISO governance**.

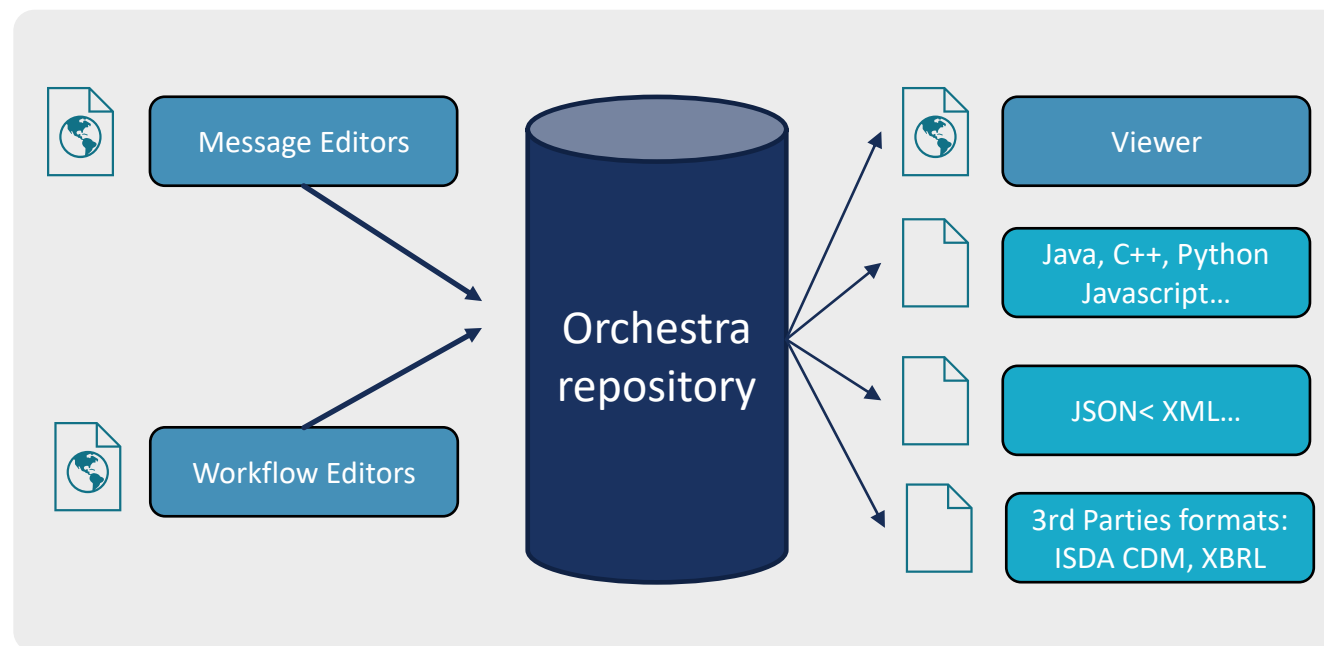


## New Topics I of III – Machine Executable Regulatory Reporting III of IV

### FIX Orchestra Technical Details

Orchestra defines the following in machine readable format:

- Workflows and scenarios
- Messages
- Conditional Expressions
- Actors and their states
- Service Configurations



Orchestra guarantees **inter-operability across toolset implementations**.

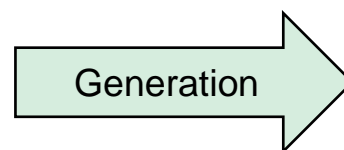
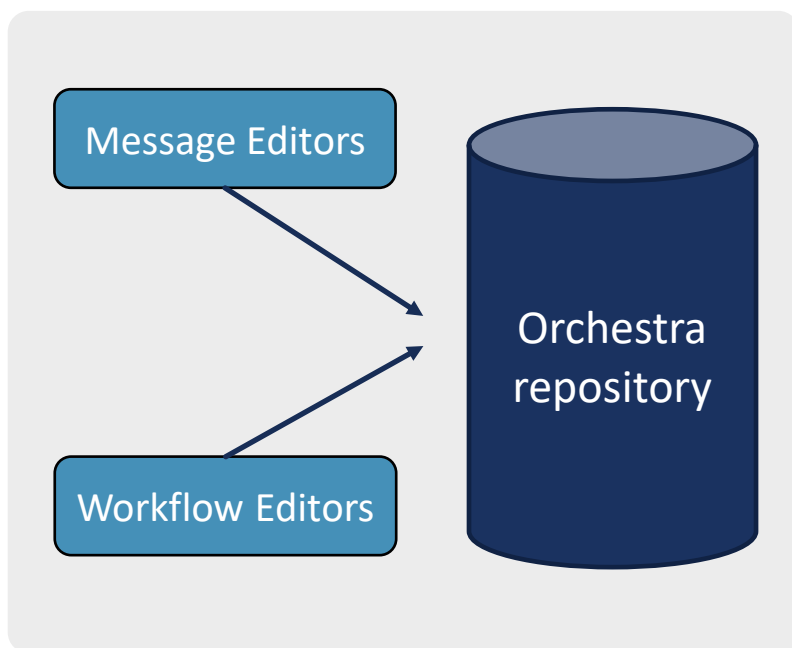
Different vendors can implement their own Message Editors, Workflow Editors, Viewers, Languages, Third-party formats.

# New Topics I of III – Machine Executable Regulatory Reporting IV of IV

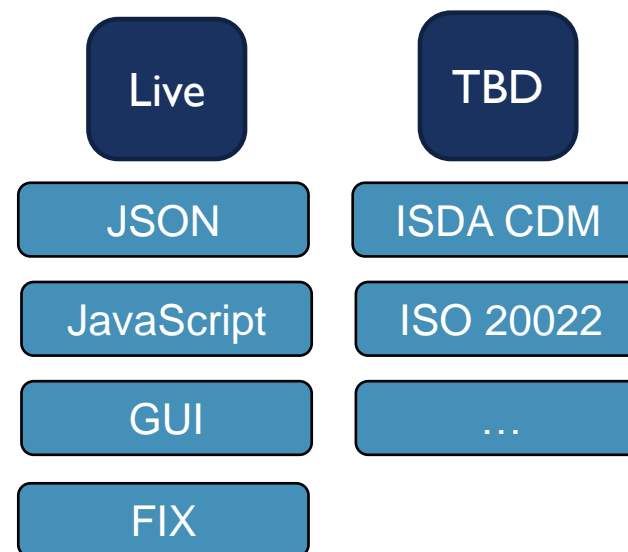
## Orchestra Current & Potential Future State

The DSB's implementation of Orchestra has been live since Q4 2017

### Specification



### Implementation



# New Topics II of III – Industry Consultation Update

## **Background:**

- The TAC met in June 2022 to discuss feedback received from the 2022 Industry Consultation for the 2023 service. The TAC reviewed questions 1, 2 and 5 from the consultation and recommended to the DSB Board that all three should be progressed.

## **Update:**

- Since the TAC meeting, the DSB Board has reviewed the recommendations.
- Q5 – Removal of VPN from Cost Recovery  
The DSB Board approved this in July to allow the DSB to undertake an early outreach to the affected clients.
- Q1 – Global Agile Architecture (GAA)  
The DSB Board approved this item in September. The Board requested further clarity on the deliverables from this additional investment over the two years. Please see the separate slide which describes the next steps for the GAA.
- Q2 – Technology Controls – Tools  
The DSB Board also approved this item in September. Again, further clarification was requested around the deliverables for this one-year investment.
- The [2023 fees and rules](https://www.anna-dsb.com/fees-rules-2023/)<sup>1</sup> have been published on the DSB's website.

<sup>1</sup><https://www.anna-dsb.com/fees-rules-2023/>

# New Topics III of III – Global Agile Architecture

## **Background:**

- The Global Agile Architecture will commence at the start of 2023 under the governance of the TAC. This slide proposes a governance model for the TAC to review.

## **DSB Proposal:**

- The DSB proposes the following approach for the TAC's oversight of the GAA:
  - Re-use of the Cloud Architecture Subcommittee (CASC)
  - Cancel all existing membership, but extend new invites to all TAC members (or an alternative technical delegate from their organisation) and TAC Regulatory Observers to join the CASC
  - Target for feedback will be two weeks from this TAC Meeting – Wednesday 9<sup>th</sup> November
  - An invite will be sent to all new CASC members for an initial meeting on Wednesday 23<sup>rd</sup> November
  - In this meeting, the CASC will be asked to:
    - Nominate a Chair for the CASC
    - Agree the initial scope for the GAA team to commence in January 2023
    - Propose the meeting cadence for the CASC
    - Propose the mechanism for updates between meetings

# UPI Update I of II – Baseline I of II - Progress

## UPI Baseline Progress:

- UPI Product documentation published 7<sup>th</sup> September 2022
- UPI Environment Framework agreed
- Plans for 3<sup>rd</sup> UAT environment agreed and scheduled
- Ongoing review of additional UPI and OTC ISIN templates (CDIDE request) by the Product Committee
- Non-standard template changes scheduled for November 2022
- GUI Release targeted for November 2022
- Authority User Type developed
- ISIN Pre-population script developed; Product Committee are reviewing the impact on the ISIN population where a UPI parent cannot be created due to stricter validation
- File download permissioning model approach defined
- Remaining API development for FIX remains on track
- MIS Analysis completed
- Reference data analysis completed and interface development underway
- UPI Legal Terms and Conditions Consultation Report published on 12<sup>th</sup> April 2022
- DSB Access and Usage Agreement and Policies for 2023 published on 28<sup>th</sup> September 2022
- Unplanned work item analysis completed; Approach agreed with the DSB Board, allowing analysis and development to progress for:
  - *Increased number of Underlier Indices*
  - *Underlier name*
  - *Obsolescence of underlier report*
- Project remains on track for a UAT Launch in March 2023 (assuming December 2023 Regulatory Mandate)



## UPI Update II of II – UPI Upscale

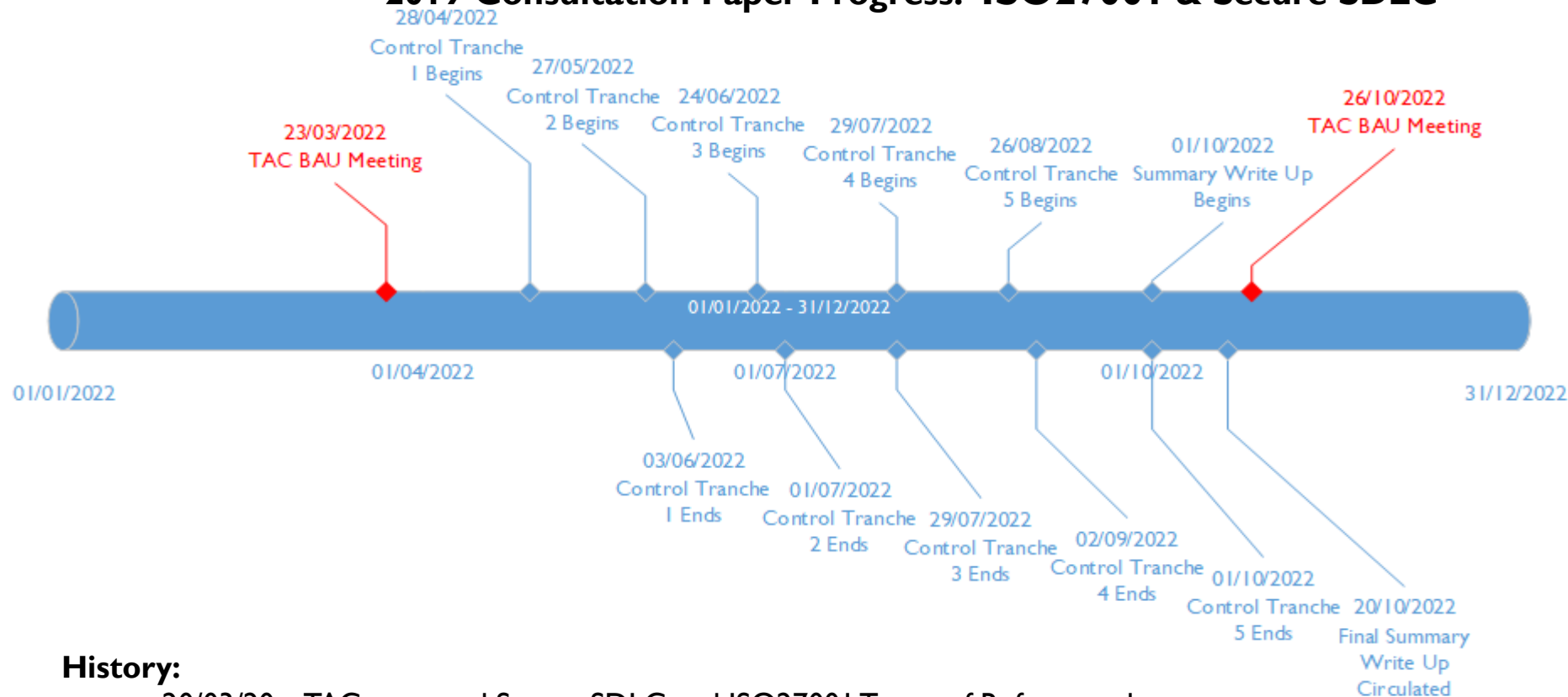
### UPI Upscale Progress:

- The Client Onboarding & Support Platform (COSP) will be available at the launch of the UPI Service in UAT, in order to enable fee-paying users of the UPI service to set-up their client profile, configure GUI users and API connections for UAT (depending on User Type), and to enable Registered users to sign up.
- Prior to the launch of the UPI Service in Production, workflows will be available to allow the review and digital signature of the DSB UPI Subscription Form, and to manage payment for the service.
- Implementation of the COSP is on track.
- On 28 September 2022, the DSB Main Terms and Policies were published.
- Work has begun on the roll-out of a new User Type for (regulatory) Authorities:
  - A dedicated User Type of ‘Authority’ based on the ‘Search Only API’ profile
  - COSP workflow (notably, suppression of the payment workflow, as Authorities have free access)
  - Drafting of Additional Terms to govern access for Authorities
- Operational readiness is underway – planning for the mobilization of the DSB UPI Support team, readiness of procedures and MIS, and release of the COSP into a customer facing environment.

# CISO Update I of III

There was an action to produce a report relating to the 2019 consultation paper items that can be shared publicly. This will be shared with the TAC via the Bulletin Board by 1<sup>st</sup> April 2022 to allow the TAC to review prior to wider distribution. - Due to resourcing constraints this was delayed to allow the completion of the ISO27001 remediation

## 2019 Consultation Paper Progress: ISO27001 & Secure SDLC



### History:

- 20/03/20 – TAC approved Secure SDLC and ISO27001 Terms of Reference documents
- 03/12/20 - The Office of the CISO published the analysis findings to the TAC via email
- 18/12/20 – TAC feedback deadline

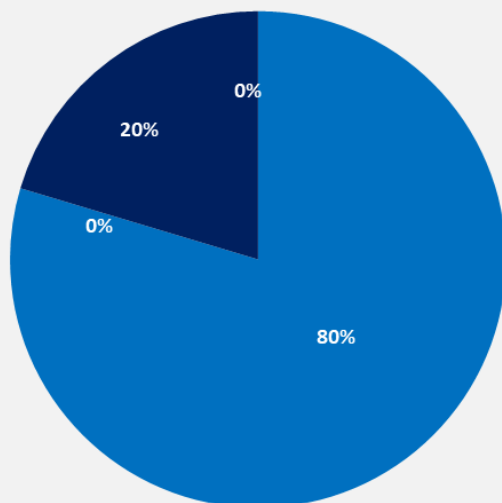
Control Area
Security Policy
Acceptable Use
Human Resources
IT Asset Management
Capacity Management
IT Risk Management
Supplier Management
Incident Management
Business Continuity
Physical Security
Network Security
IT Operations Management
IT Endpoint Management
Malware Protection
IT Change Management
Information Handling
Access Control
Configuration Management
Logging and Monitoring
Encryption
System Development



## CISO Update II of III

The remediation work is complete. We are ready to engage with an ISO27001 accreditation company. We are working on the best approach for the engagement and will report once agreed upon internally.

ISO 27001 Status

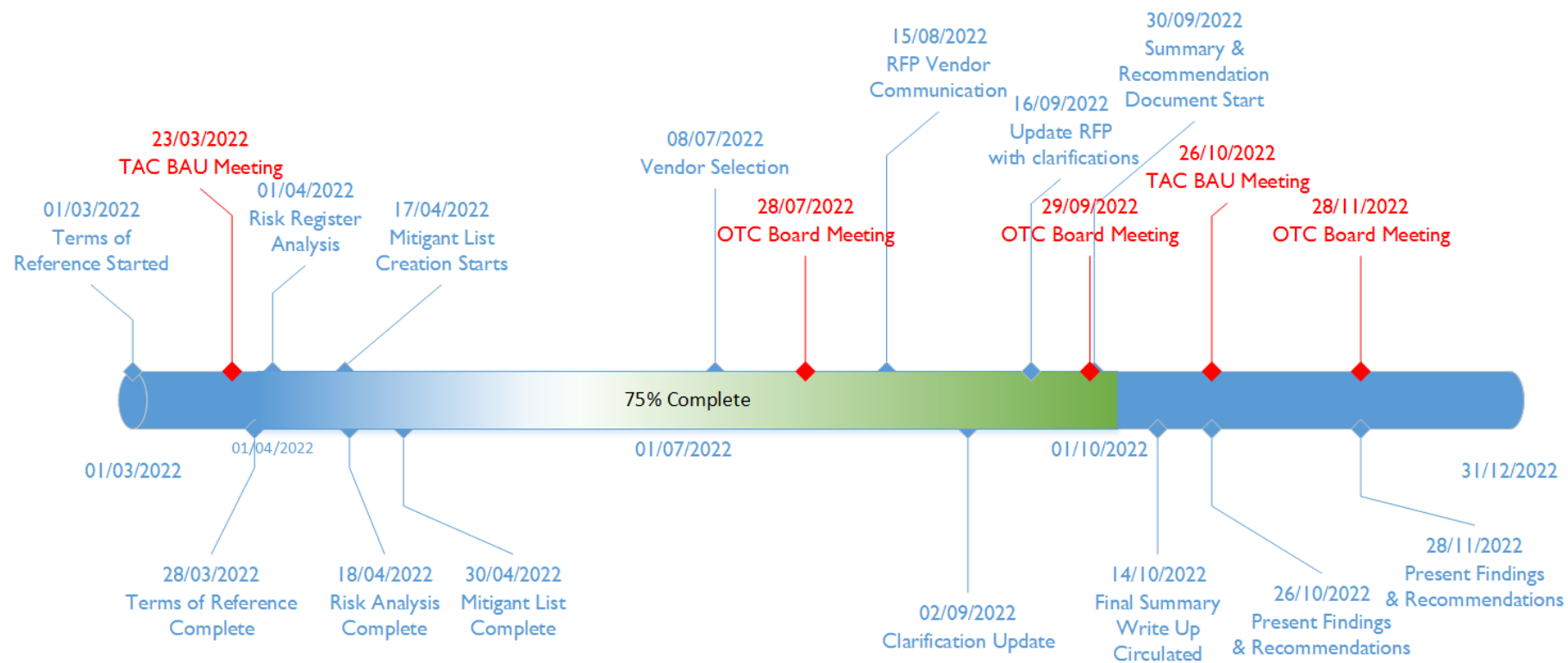


■ Compliant ■ Compliant ■ For Review ■ Gap Identified - Mitigant Planned

ISO 27001 Summary			
Count of Control Area	Column Labels		
Row Labels	Compliant	Gap Identified - Mitigant Planned	
Acceptable Use	1		
Access Control	6	1	
Business Continuity	5		
Capacity Management	1		
Configuration Management	1		
Encryption		1	
Human Resources	7	1	
Incident Management	7		
Information Handling	7	3	
IT Asset Management	2		
IT Change Management	1		
IT Endpoint Management	1		
IT Operations Management	5		
IT Risk Management	5	2	
Logging and Monitoring	3		
Malware Protection	1		
Network Security	5		
Physical Security	11		
Security Policy	10		
Supplier Management	1	3	
System Development	6	11	
<b>Grand Total</b>	<b>86</b>	<b>22</b>	<b>108</b>

# CISO Update III of III

## 2021 Consultation Paper Progress: Security Operations Centre Analysis



### Summary:

The DSB believes it is appropriate to undertake a detailed analysis on the implementation of a Security Operations Centre, either on-site or contracted to a third-party.

### TAC Question:

***Should the DSB perform a cost, benefit and risk analysis on the implementation of a Security Operations Centre?***

# TAC Subcommittee Updates – TAC SSC

The TAC SSC met on the 28<sup>th</sup> September 2022, the first meeting since 8<sup>th</sup> December 2021. The task remains to finalise the DSB UPI Strategic Requirements Report, the one outstanding question has now been removed.

The main focus of the meeting was the pre-population process which will assign a parent UPI to the existing OTC ISIN population. The members were updated with the details of this process and were advised that a small number of OTC ISIN’s will be deprecated. This is because of stricter validation rules in place for the UPI than were in place when the OTC ISIN records were created. The DSB’s product committee is currently reviewing the affected OTC ISIN’s.

The members discussed the impact on both the file download and the FIX subscription processes caused by the significant number of OTC ISIN record updates being made by this process. The total volume is forecast to be approximately 115 million records by December 2023, the anticipated date of the earliest regulatory mandate. The TAC SSC met again on Wednesday 19<sup>th</sup> October 2022 to discuss the outstanding points relating to the pre-population process. The proposal from this meeting is being summarised for offline confirmation by the members.

Please note that the first regulatory mandate has been declared by [ESMA](#)<sup>1</sup>, this date is the 29<sup>th</sup> April 2024.

<sup>1</sup><https://www.anna-dsb.com/download/2022-10-12-notification-dsb-welcomes-emir-refit-publication-upi-mandate-now-in-eu-law/>

### Further TAC SSC Information

Website: <https://www.anna-dsb.com/technology-advisory-sub-committee/>  
 Members: <https://www.anna-dsb.com/technology-advisory-sub-committee-members/>  
 Charter: <https://www.anna-dsb.com/download/technology-advisory-sub-committee-charter/>  
 Minutes: <https://www.anna-dsb.com/knowledge-centre/?wpdmc=tac-sc-minutes>

# AOB

## Further TAC Information:

- Website: <https://www.anna-dsb.com/technology-advisory-committee/>  
Members: <https://www.anna-dsb.com/technology-advisory-committee-members/>  
Charter: <https://www.anna-dsb.com/download/technology-advisory-committee-charter/>

# Appendices

- A – TAC Committee Members
- B – TAC Meeting Schedule
- C – TAC Bulletin Board Items
- D – Annual Checklists
  - D1 – Software Version Levels
  - D2 – Penetration Testing
  - D3 – Disaster Recovery Testing
- E – Actions

## Appendix A - TAC Committee Members

Institution	Category	First Name	Last Name	Position / Title
Asset Control	Industry	Martijn	Groot	VP, Marketing and Strategy
Bloomberg	Industry	Chris	Pulsifer	Software Development Manager
BVI	Industry	Felix	Ertl	VP, Legal
CFETS	Industry	Yan	Hui	RMB Derivatives Research & Development Manager
CFMMC	Industry	Huang	Lu	IT & Senior Economist
Citigroup	Industry	Souvik	Deb	VP, Regulatory Reform
CSIS	Industry	Billy	Chen	Monitoring Centre Director
Deutsche Bank AG	Industry	Amit	Bairagi	Product Owner
DTCC	Industry	Warren	Rubin	Director, Repository and Derivatives Services
FIX	Industry	Lisa	Taikitsadaporn	FIX Global Technical Committee
HSBC	Industry	James	Cowie	Americas Product Owner - Regulatory Reporting
Independent Expert	Industry	James	McGovern	Enterprise Architect & Security Leader
Independent Expert	Industry	Jim	Northey	ex officio as ISO TC 68 Chair Elect
ISDA	Industry	Ian	Sloyan	Head of Data & Digital Solutions
JP Morgan	Industry	Atara	Sender-Stein	Vice President, Software Engineering
LSEG	Industry	Niteen	Shastri	Assistant Vice President - Enterprise Content Technology - Shared Technology
Morgan Stanley	Industry	Bharat	Kanase	Vice President, Technology
Rabobank	Industry	James	Brown	Delivery Manager, IT Systems
SEB	Industry	Torbjörn	Cronbladh	Market Data Specialist and Product Owner
SIX Group Services AG	Industry	Richard	Gee	Head of Product Provisioning and Delivery
SmartStream	Industry	Rocky	Martinez	CTO
Standard Chartered Bank	Industry	Anthony	Brennan	Data Solutions Lead
State Street Bank	Industry	William	Rodiger	MD - Business Technology Solutions
Tahoe Blue Ltd	Industry	Jefferson	Braswell	Founding Partner
UBS	Industry	James	Colquhoun	Market Regulation Domain Architect
BGC Partners	TV	Jimmy	Chen	Development Manager
Refinitiv MTF	TV	Zintis	Rullis	Senior Technical Specialist
State Street FX Connect	TV	Rajkamal	Roka	Head of FX Regulatory Reform
Tradeweb	TV	Elodie	Cany	Director, Technology Product Development

## Observers

Organisation	Name	Position / Title
CFTC	Robert Stowsky	IT Specialist
ESMA	Olga Petrenko	Senior Officer, Markets
FCA	Paul Everson	Senior Associate – Market Oversight
JSDA	Eiichiro Fukase	Counsellor to the Chairman (for Fintech, Financial Products and Global Regulation)

DSB TAC Sponsor: Marc Honegger  
DSB Board Member

DSB TAC Chair: Chris Pulsifer  
Bloomberg

Designated DSB Officer: Andy Hughes  
DSB Management Team

DSB CISO: Will Palmer  
DSB Management Team

DSB TAC Secretariat: Tom Smith  
DSB Project Manager

Yuval Cohen  
DSB Technical Architect

## Appendix B - TAC Meeting Schedule

The following shows the TAC meeting dates & times:

Date	Description	Time
Wednesday 23 <sup>rd</sup> March 2022	2022 Meeting 1	1pm GMT (1pm UTC, 2pm CET, 9am EDT)
Wednesday 20 <sup>th</sup> April 2022	2022 Strategy Meeting	1pm BST (12pm UTC, 2pm CET, 8am EDT)
Wednesday 22 <sup>nd</sup> June 2022	2022 Industry Consultation	1pm BST (12pm UTC, 2pm CET, 8am EST)
<b>Wednesday 26<sup>th</sup> October 2022</b>	<b>2022 Meeting 2</b>	<b>1pm BST (12pm UTC, 2pm CET, 8am EDT)</b>

## Appendix C – TAC Bulletin Board Items

The following table details the active TAC Bulletin Board topics:

Created	Title	Posts	Link
15/03/2022	DSB Software Version Levels	2	<a href="https://www.anna-dsb.com/bulletin-board/tac-forum/dsb-software-version-levels/#post-276">https://www.anna-dsb.com/bulletin-board/tac-forum/dsb-software-version-levels/#post-276</a>
14/03/2022	Validate Rules – SEC / XBRL US	1	<a href="https://www.anna-dsb.com/bulletin-board/tac-forum/validation-rules-sec-xbrl-us/#post-275">https://www.anna-dsb.com/bulletin-board/tac-forum/validation-rules-sec-xbrl-us/#post-275</a>
14/03/2022	Validate Rules – European Central Bank	1	<a href="https://www.anna-dsb.com/bulletin-board/tac-forum/validation-rules-european-central-bank/#post-274">https://www.anna-dsb.com/bulletin-board/tac-forum/validation-rules-european-central-bank/#post-274</a>
14/03/2022	Validate Rules – FDIC / FFIEC White Paper	1	<a href="https://www.anna-dsb.com/bulletin-board/tac-forum/validation-rules-fdic-ffiec-white-paper/#post-273">https://www.anna-dsb.com/bulletin-board/tac-forum/validation-rules-fdic-ffiec-white-paper/#post-273</a>
08/03/2022	DR Testing Options	3	<a href="https://www.anna-dsb.com/bulletin-board/tac-forum/action-2111-001-dsb-to-create-a-new-topic-on-the-tac-bulletin-board-regarding-the-future-dr-testing-options/#post-272">https://www.anna-dsb.com/bulletin-board/tac-forum/action-2111-001-dsb-to-create-a-new-topic-on-the-tac-bulletin-board-regarding-the-future-dr-testing-options/#post-272</a>
23/04/2021	CFI 2019	3	<a href="https://www.anna-dsb.com/bulletin-board/tac-forum/cfi-2019/#post-244">https://www.anna-dsb.com/bulletin-board/tac-forum/cfi-2019/#post-244</a>
29/03/2021	ToTV Disaster Recovery (Global Tables)	1	<a href="https://www.anna-dsb.com/bulletin-board/tac-forum/new-topics-totv-disaster-recovery-global-tables/">https://www.anna-dsb.com/bulletin-board/tac-forum/new-topics-totv-disaster-recovery-global-tables/</a>
28/04/2022	Industry Consultation Question – Global Agile Architecture	4	<a href="https://www.anna-dsb.com/bulletin-board/tac-forum/industry-consultation-question-global-agile-architecture/#post-284">https://www.anna-dsb.com/bulletin-board/tac-forum/industry-consultation-question-global-agile-architecture/#post-284</a>
13/04/2022	ISO27001 Consultation Paper Summary – Public Distribution	2	<a href="https://www.anna-dsb.com/bulletin-board/tac-forum/iso27001-consultation-paper-summary-public-distribution/#post-282">https://www.anna-dsb.com/bulletin-board/tac-forum/iso27001-consultation-paper-summary-public-distribution/#post-282</a>
13/04/2022	Secure SDLC Consultation Paper Summary – Public Distribution	2	<a href="https://www.anna-dsb.com/bulletin-board/tac-forum/secure-sdlc-consultation-paper-summary-public-distribution/#post-281">https://www.anna-dsb.com/bulletin-board/tac-forum/secure-sdlc-consultation-paper-summary-public-distribution/#post-281</a>



## Appendix D – Annual Checklists

The following table details the items which will be checked on an annual basis:

Appendix	Item	Last Review	Next Review	Comments
D1	Software Version Levels	03/11/2021	Q4 2022	Items being progressed in 2021
D2	Penetration Testing	03/11/2021	Q4 2022	2022 Pen Test scheduled for Q4
D3	Disaster Recovery Testing	23/03/2022	Q4 2022	2022 UAT DR Test scheduled.

## Appendix D I - Software Version Levels

The DSB's software version policy is to remain within one major version of the latest version in industry.

This is to ensure that we remain current particularly in relation to security updates.

All upgrades are anticipated to be transparent to the DSB user base (i.e.: backwardly compatible)

The key software versions are available to the TAC members via the bulletin board via the following link:

<https://www.anna-dsb.com/bulletin-board/tac-forum/dsb-software-version-levels/#post-276>

## Appendix D2 – Penetration Testing Update

Year	Company	Tested	New	Resolved	No Action	Pending Release	Outstanding	Notes
2019	GDS	2018	13	10	3	0	0	
2020	AON	2019	15	11	0	3	1	
2021	Jumpsec	2020	8	4	0	1	3	
2022	Jumpsec	2021	4	1	0	1	2	
2023	Jumpsec	2022						Scheduled during UAT DR Test

## Appendix D3 – Disaster Recovery Testing

This table below details the DSB's DR testing history:

Environment	Start	End	Description	Outcome	Notes
UAT	16 July 2021	10 September 2021	Full migration of DSB service to the DR region using the UAT environment	Success	Runbook revised and optimised
UAT	19 November 2022	03 December 2022	Full migration of DSB service to the DR region using the UAT environment, including ToTV and reverse DR flow	Pending	

## Appendix E – TAC Open Actions

Ref	Action	Update	Slides	Target	Status
2111-002	CISO to produce a report relating to the 2019 consultation paper items that can be shared publicly	Update provided in the meeting	32-35		Open
2203-005	DSB to reach out to the Orchestra contacts provided to understand if the existing master repository definition can be expanded to support additional validation rules.	Further update provided in the pack	20-22		Open