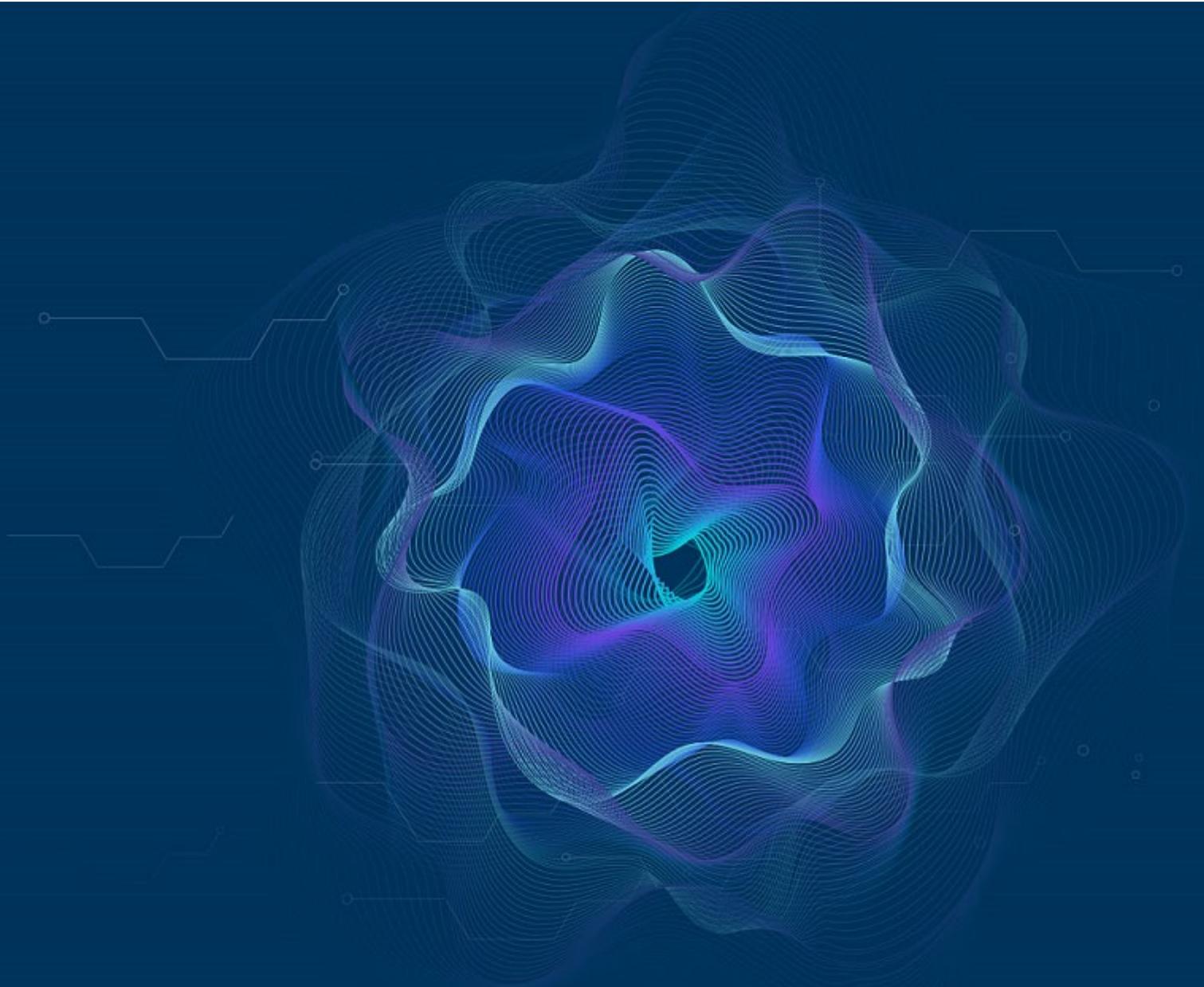


HKEX Synapse

Frequently Asked Questions



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A. General

A1. What is HKEX Synapse?

HKEX Synapse (“Synapse”) is a new integrated settlement platform for its landmark Stock Connect programme. By leveraging DAML smart contract technology, Synapse will standardise and streamline the post-trade workflows of Northbound Stock Connect by maximising efficiencies for market participants in a transparent, secure and reliable manner. Asset Managers (“AMs”), Global Custodians (“GCs”), Local Custodians (“LCs”), Exchange Participants (“EPs”) and Clearing Participants (“CPs”) will all benefit from the improved connectivity.

A2. What is the rationale behind introducing Synapse?

Synapse aims to address some of the common challenges that have arisen amongst market participants by improving the efficiency and transparency of Northbound Stock Connect settlement for institutional investors. This new integrated settlement platform will streamline post-trade processes and facilitate more global institutional investors accessing the Mainland China market via Stock Connect.

A3. Is Synapse mandatory for all CCASS participants?

No. Synapse is an optional service for Northbound Stock Connect settlement.

A4. Will Synapse replace CCASS for securities settlement?

No. Synapse will not replace CCASS but rather interface with CCASS.

A5. Is the transaction data stored in Hong Kong, with a Hong Kong entity?

Synapse data will be hosted by an HKEX entity on premise in Hong Kong.

A6. What is Synapse’s data retention period?

All Synapse online data will be retained for 31 days. Data beyond 31 days will be archived.

A7. When is Synapse expected to roll out?

Synapse is scheduled to launch in 1H 2022.

A8. Where can I find more information about Synapse?

Please refer to our Synapse webpage (www.hkex.com.hk/synapse) for more information.

B. Eligibility

B1. Who are eligible participants of Synapse?

Institutional investors interested in participating in Synapse will need to have an existing Special Segregated Account (“SPSA”) with its custodian for Northbound Stock Connect. Their respective GCs and LCs are also eligible to participate.

Institutional investors and their interested brokers are required to use DTCC's CTM™ and ALERT for post-trade allocation, enrichment of standing settlement instructions (“SSIs”), generation of settlement instruction via Settlement Management for Notification¹ (“SM”), and DTCC Exception Manager (“DXM”). At launch Synapse will only consume matched agreed allocations from CTM™.

B2. Do we have to use CTM™ for trade allocation in order to be participant of Synapse?

Yes. HKEX is initially partnering with DTCC for Synapse and the use of CTM™, SM, ALERT, and DXM are prerequisites in order to participate in Synapse.

B3. If one of the participants on the settlement chain (AM, GC, LC, EP, or CP), does not utilise Synapse, will the Synapse process still work?

The buy-side chain consists of the AM, GC and LC, while the sell-side chain consists of the EP and CP.

In order to participate in Synapse, either the entire buy-side chain or the entire sell-side chain must be onboarded. Maximum benefits will be attained if both the buy-side and the sell-side chains are on the platform, but the Synapse workflow will still operate, albeit with fewer benefits, if only one of the chains is onboarded.

Note that once the fund has been onboarded to Synapse, all Stock Connect settlement instructions of that fund should be processed through Synapse.

B4. Can Non Clearing Participants (“NCPs”) participate in Synapse?

Yes, with the condition that the sell-side chain consisting of the NCP and its corresponding General Clearing Participant (“GCP”) are both on the platform, and the NCP performs its trade allocation via CTM™.

B5. As an institutional investor, if my brokers are not participants of Synapse, can I still join Synapse?

As long as your AM and broker are using CTM™ for trade allocation and ALERT for trade enrichment (with the AM also using SM and DXM), even if the broker is not a participant of Synapse, the institutional investor can still join Synapse, along with its GC and LC, to complete the buy-side chain.

B6. Can an institutional investor utilise Synapse while also trading with multiple brokers on Stock Connect?

Yes. Synapse can accommodate multiple brokers as long as your AM and brokers conduct the trade allocation via CTM™ and your GC and LCs are on the platform.

¹ Settlement Management for Notification (“SM”) was previously known as Settlement Notification (“SN”)

B7. What happens if a Broker / EP becomes insolvent or otherwise is suspended by HKEX?

HKEX is authorised to suspend a Synapse participant at its discretion. In the event that an EP has been suspended, Synapse will reject any instructions received from CTM™ related to this suspended EP.

B8. How does Synapse support AMs with multiple Custodians?

An AM is required to perform fund onboarding for both ALERT and Synapse. As a part of the fund onboarding process in Synapse, the AM is required to select the relevant GC of the fund, after which Synapse will pass the onboarding request to that GC for confirmation. A similar process will require the GC to setup its corresponding LC. The onboarding process is complete upon confirmation from the LC.

Synapse operates on a fund level, so if an AM uses multiple GCs, Synapse will capture each of these relationship chain on a fund by fund basis.

C. Service Scope

C1. What are the operating hours of Synapse?

Synapse will be operational from 7:00 am to 12:00 am HKT Monday to Friday, subject to varying operating levels in the event of banking holidays in Hong Kong.

C2. Will Synapse support SPSA account opening?

No. The SPSA opening process will remain unchanged and will continue to be managed via Client Connect.

C3. Will Synapse support linked trades?

No. Linked trades are out of Synapse's scope.

C4. Will Synapse support free of payment ("FOP") trades?

Yes. FOP transactions will be supported by Synapse.

C5. Will Synapse support master SPSA?

Master SPSA and Synapse are distinct initiatives that work with and complement each other. Synapse supports all SPSA related transactions received from CTM™. Master SPSA groups SPSA accounts together for pre-trade checking purposes, which then gets allocated on an SPSA-by-SPSA basis after the trade is executed. Master SPSA is only related to the trade execution while Synapse services post-trade related activities.

As long as any SPSA related trades flow through CTM™ (irrespective of the nature of the upstream execution), and where the AM has opted to settle via Synapse, such matched agreed allocations will be received by Synapse for settlement.

C6. Does Synapse support the Account Operator model and Middle office outsourcing?

Yes. Synapse will support both Account Operator model and Middle office outsourcing.

C7. Will Synapse manage On-Exchange ("CNS") transactions?

No. CNS transactions are out of Synapse's scope, and will continue to be processed by the CPs. Note that Synapse will not change the existing clearing and settlement arrangements with ChinaClear ("CSDC") for Northbound Stock Connect.

C8. Will Synapse support Repo or Collateral trades?

No. Repo or Collateral trades are out of Synapse's scope.

C9. Will Synapse support OTC triparty collateral arrangements?

No. OTC Triparty collateral arrangements are out of Synapse's scope.

C10. Will Synapse support sanction checks?

No. Sanction checks, compliance and risk monitoring will remain the responsibility of the participants.

C11. How will corporate actions be processed in Synapse?

Corporate action processing is out of Synapse's scope and the existing processes remain unchanged.

C12. Is there any plan to extend Synapse to consume orders outside of those from CTM™?

At launch, we are partnering with DTCC and their CTM™ services. However, we will continue to explore opportunities to partner with other matching platforms.

C13. Would HKEX consider to extend the Synapse to HK stocks in a near future?

This has not been considered at the moment. However, we are open to reviewing other applications of the Synapse model subject to market feedback after launch.

C14. What are the BCP procedures in the event Synapse becomes nonoperational?

If Synapse becomes nonoperational, participants will need to revert to SWIFT or other forms of communication. However, Synapse will be built with a high level of resilience and robust back-up facilities similar to CCASS.

D. Connectivity

D1. What is the role of DAML Smart Contracts within Synapse?

DAML Smart contracts are digital agreements used to define access permission and business logic amongst a group of participants.

D2. What are the connectivity options for Synapse?

Synapse deploys APIs to enable participants to directly access the data stored on Synapse, while also adopting SWIFT ISO20022 standards to enable message based connectivity. Further, a graphical user interface (UI) will be available.

- EPs / AMs can access via UI.
- GCs / LCs / CPs can access via 1) API and UI or 2) ISO 20022 Message and UI or 3) UI only.

D3. What is the messaging standard for API connectivity?

In general, our API standards will follow the ISO 20022 dictionary.

D4. Describe the different API Endpoints that will be used.

Synapse will deploy both REST Endpoints (pull) and Websockets Endpoints (push). Access to data via the endpoints will be determined by each participant's platform development, but in general, the former may be more suitable for static data (e.g. trading calendar or eligible securities) while the latter may be more suitable for real-time dependent data (e.g. trade approval status).

D5. Can GC and LC share the same SDNet to access Synapse?

Yes. Different certificates will be issued based on each individual Synapse role, but these roles can share the same SDNet access.

D6. Will interaction between Synapse and Participants be via private or public network?

Private network.

D7. How is transaction privacy ensured on Synapse, especially in the context of having multiple participants on the network who are not parties to the same transaction?

Synapse data will be appropriately segregated with permission controls at the application design level to ensure participants only access their own data. By deploying DAML Smart Contracts, different parties of the same transaction will have different contract views so that they can only see their own permissible data.

D8. Will Synapse support 15022 or will only 20022 SWIFT formats?

For participants connecting via ISO, Synapse will support only ISO 20022.

D9. What is Synapse's Business Identifier Code ("BIC")?

SYNPHKHH.

D10. How will an AM's backend system interact with Synapse?

The only interaction an AM will have with Synapse is via the online UI, as well as the optional SPSA End-of-Day statement of holding in ISO20022 format (if AM chooses to subscribe). Other interactions will remain via DTCC Instruction Trade Processing ("ITP").

E. Onboarding

E1. Do we need to open a new SPSA in order to participate in Synapse?

No. You are not required to open a new SPSA in order to participate if you already have an existing SPSA. Upon completion of the onboarding process, your existing SPSA will be used for securities settlement.

E2. Will we be required to sign a new contract?

Yes. In order to participate in Synapse, participants will be required to sign an additional set of documentation, which will include, but not limited to, Terms and Conditions and selection of preferred connectivity options.

E3. What are the Synapse onboarding requirements?

For participants' UI connectivity (applicable to all participants), the standard Client Connect form must be submitted.

For participants connecting via ISO, their Distinguished Name ("DN") and BIC must be provided.

For participants connecting via API, their BIC must be provided.

Where a legal entity performs multiple roles in Synapse (e.g. both LC and CP), the participant must provide a unique DN and BIC11, in order to allow Synapse to differentiate the roles. If the participant does not have a BIC, or does not have multiple BIC11s, they will need to contact HKEX separately.

For fund and/or account onboarding, please refer to the Service Description document for more details.

E4. What information is an AM expected to provide in order to sign up itself and its underlying funds to Synapse?

The AM is required to provide entity-level information (e.g. Name, LEI, BIC, SWIFT DN code, etc.) for the entity onboarding process, and this will be provided to HKEX via an offline on-boarding form.

Once an AM has been onboarded, it can then onboard the underlying funds via the Synapse UI. The fund information to be provided, for example, may consist of:

- Basic information of the fund (e.g. fund name, Investor ID, LEI)
- Settlement account information of the fund (e.g. GC being appointed, the fund's account number at GC)
- Default settlement mode of the fund per side (e.g. Real time Delivery versus payment ("RDP") / Delivery versus payment ("DVP"))

Based on the Investor ID, Synapse will enrich the onboarding request with the corresponding SPSA number and associated LC. After the AM submits this information on Synapse, the onboarding process moves to the relevant GC who then validates the information and then further inputs the settlement account information of the relevant LC. The LC then validates the entire chain of information as the final step.

E5. How does Synapse ensure trades are directed to the correct GC/LC accounts?

Static data about fund accounts (at GC and LC levels) will be captured in Synapse during the fund onboarding process. This will be combined with ALERT SSI data in order to generate the Single Combined View (“SCV”) within Synapse for any given transaction, which will include the relevant account information, ensuring the instruction is directed to the right GC/LC account.

Reference data within Synapse and ALERT must be kept up to date at all times to ensure proper instructions are generated.

E6. Does Synapse support a fund with multiple Investor IDs/SPSA accounts?

Synapse operates on an individual fund basis, and thus on a one-fund-to-one-SPSA relationship.

The “Fund’s account at GC” is the unique key that Synapse uses to identify a fund profile when receiving instructions from DTCC. Therefore, the Fund’s account at GC must be unique, and will be validated at fund onboarding.

E7. Is it mandatory for an AM to select a default settlement mode during a fund set-up? Can this be provided on a trade-by-trade basis?

Yes, at the point of fund onboarding, a default settlement option (RDP or DVP) will need to be selected for each trade type (e.g. one default settlement mode for all buy trades and one default settlement mode for all sell trades).

For details of how the default settlement mode can be overridden on a trade-by-trade basis, please refer to [FAQ Section J](#).

E8. Will the notifications/status updates be provided to participants upon successful fund set up?

Once the fund onboarding process has been completed, and the contents approved by both the GC and LC, all three parties involved (AM, GC, LC) will receive a notification on their Synapse dashboard via UI.

F. Access Permissions

F1. What are the access rights for Synapse users connecting via UI?

Accessing Synapse via UI will allow users to conduct fund and account onboarding, inquire about transaction status, view reference and market data, submit approvals/rejections for trades, change settlement modes, and generate reports.

F2. How will user roles be defined in Synapse?

Participants can assign the user profiles in accordance with your needs (e.g. maker, checker, or combination maker/checker etc.) and access will cover your participant's data only. Please find a summary of user role types below.

Role Type	Description
Data Manager Input Only User	<ul style="list-style-type: none"> - Maker - User can input data (e.g. fund onboarding) - User cannot authorise data input
Data Manager Input Authorise User	<ul style="list-style-type: none"> - Checker - User can authorise data input by Data Manager Input Only User (Maker) - User can also input data as a Maker. <p><i>Note: A different Data Manager Input Authorise User (Checker) will have to authorise their input.</i></p>
Transaction Balance Input Only User	<ul style="list-style-type: none"> - Maker - User can input data (e.g. transaction approval) - User cannot authorise any data input
Transaction Balance Input Authorise User	<ul style="list-style-type: none"> - Checker - User can authorise data input by Transaction Balance Input Only User (Maker) - User can also input data as a Maker. <p><i>Note: a different Transaction Balance Input Authorise User (Checker) will have to authorise their input.</i></p>
Read Only User	<ul style="list-style-type: none"> - User can only view / access data and information to which their firm is allowed access - User does not have ability to input or authorise changes

F3. How are user access rights maintained in Synapse?

Synapse participants will be able to assign different user roles for its own team with corresponding roles and access rights.

F4. Can an AM grant 3rd party access to their information?

An AM can appoint a Middle office outsourcing service providers (“AMOs”) by informing HKEX. The AMO can then participate in Synapse, and their user roles can be set up to access their AM client’s information. Once an AM has assigned an AMO, an AM's user profiles will be relegated to Read Only Users.

F5. For UI access, does Synapse need proxy settings or does it only need to whitelist the URL?

Synapse UI URL is publicly accessible. For proxy settings, please refer to your in-house IT for specific settings if required.

F6. How can we access the Synapse Dashboard?

All parties can access Synapse Dashboard via UI.

F7. What level of transparency is provided to Synapse participants on opposite sides of the settlement chain?

If both sides of the settlement chain are on Synapse, then both sides will have full visibility on the approval status of the instruction, including the reasons why an instruction was rejected. Once the necessary approvals have been received and the instruction are sent into CCASS, the status will also be visible to both sides of the settlement chain.

G. Operations – Platform Functionality

G1. What instructions from CTM™ will be consumed by Synapse?

Synapse will only consume match agreed allocations and match agreed cancellations from CTM™ sent via SM.

G2. How will the allocation process be affected by Synapse?

The current allocation process will remain unchanged, as Synapse will not be involved in any allocation activities but only consume match agreed allocations from CTM™.

G3. When will Synapse deliver settlement instructions to CCASS?

For the buy-side chain, an instruction will be sent to CCASS once both the GC and LC have approved the instruction. For the sell-side chain, an instruction will be sent to CCASS once the CP has approved the instruction.

G4. Will there be any changes to the current CCASS matching and settlement process?

No. There is no change to the following processes:

- Trading flows between EPs and the Stock Exchange of Hong Kong (“SEHK”)
- Matching, clearing and settlement flows within CCASS of Hong Kong Securities Clearing Company Limited (“HKSCC”)
- Northbound Stock Connect settlement process with CSDC.

G5. When will Synapse provide matching and settlement status updates?

Synapse will consume the instruction status from CCASS upon completion of matching and settlement runs. This information will be immediately disseminated to Synapse participants via their preferred channels (API / ISO 20022 Message / UI).

G6. Is the SI status in CCASS provided by Synapse in real time? If not, what is the update frequency?

Synapse follows the existing CCASS settlement and matching cycle and will reflect the CCASS status immediately after the relevant batch runs. In between existing matching and settlement cycles, Synapse will also query CCASS on the status of SIs.

G7. Will Synapse provide any position checking?

No. The pre-trade checking mechanism will remain unchanged, and Synapse will not perform any position checks. However, Synapse will be able to provide buy-side participants SPSA End of Day (“EOD”) statement of holdings in ISO20022 format as an additional service.

G8. Will there be buy-in / penalty in the case of insufficient holding leading to a failed trade?

There will be no changes to the current buy-in practice in CCASS. Settlement obligation remains unchanged and will continue to be the responsibility of HKSCC participants.

G9. Can participants inquire about relationship chains that they are a participant of?

All parties along the chain (e.g. AM, GC, LC), will be able to query the fund relationship and view the entire chain mapped out as long as they are a part of that chain. Restrictions may apply to specific fields.

G10. Will Synapse have its own unique trade status codes or use the same CCASS codes?

Synapse will reflect largely the same status codes as those from CCASS, but Synapse will be able to provide more details than CCASS. CCASS status codes will be translated into appropriate codes under ISO20022 for API and ISO messaging. Please refer to technical specification documentation for details.

G11. How will Synapse determine if CNY or CNH will be used for any given trade?

Synapse will consume the ISO currency code (i.e. CNY) and settlement amount on the match agreed allocation from CTM™, and generate SIs using the same settlement details. In terms of ISO currency code, Synapse will only carry forward the ISO currency code provided by CTM™.

H. Operations – Instruction Processing

H1. As an AM, do I need to send my instruction to my GC if my settlement chain participates in Synapse?

No. Synapse will deliver the instruction received from DTCC to GC in accordance to the pre-set static collected during the fund onboarding process.

H2. As a GC, do I need to send my instruction to my LC if my settlement chain participates in Synapse?

No. Synapse will deliver the instruction received from DTCC to LC in accordance to the pre-set static collected during the fund onboarding process.

H3. As an LC, do I need to send my instruction to CCASS if my settlement chain participates in Synapse?

No. Synapse will deliver the instruction that has been approved by the GC and LC to CCASS.

H4. As an EP, do I need to send my instruction to my CP if my settlement chain participates in Synapse?

No. Synapse will deliver the instruction received from DTCC to CP in accordance to the pre-set static collected during the sell-side account onboarding process.

H5. As a CP, do I need to send my instruction to CCASS if my settlement chain participates in Synapse?

No. Synapse will deliver the instruction that has been approved by the CP to CCASS.

H6. If my role is an LC and a CP/GCP, do I need to send the instruction to CCASS?

No. Synapse will deliver the instruction that has been approved by the GC, LC, and CP to CCASS. This instruction will be an SI if the receiving party and the delivering party are different CCASS participants, and it will be a Stock Segregated Account Transfer Instruction (“STI”) if the receiving party and the delivery party are the same CCASS participant.

H7. Suppose a Synapse-enabled AM has placed a block order with allocations to multiple GC and one of the GCs has not joined Synapse, what happens to the entire order?

Synapse is an optional service, so an AM has the flexibility to onboard some funds to Synapse, but not others. However, a fund must be all in or all out, as in Synapse will not support a fund that has some trades processed via Synapse and others not. This distinction is important.

In Synapse, one fund is tied to one account at GC which is linked to one account at LC. For example, one order may have 2 allocations that belong to 2 different funds and their respective GCs. Fund A is on Synapse, while Fund B is not. As long as Fund A has been properly set up for Synapse and ALERT SSI, all of its trades will flow automatically to Synapse. Since Fund B is not on Synapse, then nothing changes and the message does not get sent to Synapse.

H8. As a GC, how will we manage FX standing instructions with Synapse?

Synapse will deliver the instruction (including FX information that has been setup and enriched by ALERT) received from DTCC to the GC in accordance to the pre-set static collected during the fund onboarding process. From there, the participants' FX process can be initiated as with today.

H9. For GCs that do not have Asia time zone coverage, does this mean they cannot participate in Synapse?

For trades to be processed in Synapse, the GC, LC and CP participants will need to provide their approvals before the instruction is sent to CCASS. Note that an AM approval is not required.

Synapse can receive CTM™ match agreed instructions outside of standard Asia operating hours as long as both CTM™ and Synapse are operational. As such, a GC's participation during or outside the Asia time zone coverage will depend on their own operational model.

H10. Who generates the Unique Transaction Identifier ("UTI") and in what numerical format is it generated?

The 52-character UTI will be generated by CTM™ and passed onto Synapse via SM. The UTI has three components as below:

DTCC Institutional Trade Processing ("ITP") LEI (20 characters) + Buy-side CTM™ Trade Detail ID (16 characters) + Sell-side CTM™ Trade Detail ID (16 characters)

For UTI details, please contact your DTCC representative.

H11. If an AM executes a buy trade for 1000 shares and after allocation, splits it into 2 settlements (400 and 600 shares). Synapse will generate 2 SCV views for settlement of 400 shares and 600 shares, but will there be 2 separate UTIs?

Yes. There will be two unique UTIs for each individual allocation.

Taking the above example, the 1000 share is the block trade and there will a UTI assigned by CTM™. Upon splitting the initial trade into two allocation trades, CTM™ generates a unique UTI for the 400 allocation trade, and another UTI for the 600 allocation trade. Once the messages are sent into Synapse, each allocation will therefore have its own unique UTI.

H12. Will a GC or LC be able to suppress its instruction approval so that the SI can be released to CCASS on T+1 instead of T+0?

Synapse will only deliver instructions that have been approved by GC and LC to CCASS. As such, it would be possible for an AM to communicate (outside of Synapse) to its GC/LC to withhold their approval in order to suppress the delivery of the settlement instructions into CCASS.

H13. Can Synapse provide exceptional reporting directly to the AM for those that do not subscribe to the DXM module?

No. Based on the current model, subscription to DXM is a prerequisite for Synapse. If Synapse rejects a matched allocation sent from CTM™ (e.g. instruction quoted a Hong

Kong stock instead of a Stock Connect stock), this information will be made available on DXM for the AM to investigate.

H14. How will we be able to distinguish trades settled via Synapse and those settled outside of Synapse?

CCASS reports will distinguish between Synapse trades and non-Synapse trades by displaying a truncated version of the UTI with a prefix of SYN in specific fields depending on whether the instruction is an SI or STI.

For an SI

To be displayed in the **Processing Reference** field as: SYN + Buy-side CTM™ Trade Detail ID (16 characters) + Sell-side CTM™ Trade Detail ID (16 characters).

This will appear in the CCASS reports including Intra-Day ISI/SI Full list (“CSESI02”), Unmatched SI Report (“CCLUS01”), and SI Activity Report (“CCLSI02”).

For an STI

To be displayed in the **Remarks** field as: SYN + Buy-side CTM™ Trade Detail ID (16 characters) + Sell-side CTM™ Trade Detail ID (16 characters).

This will appear in the CCASS report STI Activity Report (“CSEAT02”).

H15. If an instruction in Synapse is approved by all parties and the SI is delivered to CCASS, can the instruction still be amended prior to settlement?

Yes. Amending the settlement instruction by LC or CP directly in CCASS/3 Terminal (“C3T”) is an option. However, please note that amending certain fields in C3T may lead to a “No Further Processing (NOFP) status” in Synapse (e.g. ISIN, quantity, settlement currency, instruction type, processing reference, counterparty, client account number or stock code). The NOFP status is final unless the change in C3T is reverted back to the original state.

To avoid such scenarios, we strongly encourage all parties to keep ALERT SSI details and other reference data updated and also properly reflected in Synapse.

H16. Is it possible for a GC to query a missing transaction from AM in Synapse?

Synapse will consume only match agreed instructions from DTCC.

If there is no transaction information in Synapse, the transaction cannot be queried in Synapse. For example, where an instruction has been rejected by Synapse because the fund does not exist in Synapse, Synapse will inform DTCC of the rejection reason, which will then be reflected in DXM, DTCC’s exception management platform accessible to AMs and EPs.

H17. Does Synapse track the instruction references provided by LC/GC/CP when they submit their approval/rejection instructions?

Yes. Synapse will support each participant’s own internal reference, and the reference will continue to be tracked in the SCV of the trade. These internal references will be captured by Synapse when the participants submit their approvals / rejections to individual trades via API & ISO (not available via UI).

H18. For a particular trade, if the contractual amount is \$100, but the matched amount in CCASS is \$105, what is the amount that will be displayed in the settlement confirmation?

When a trade is matched within the CCASS tolerance, prior to settlement, the contractual amount will be displayed (i.e. \$100), but upon settlement the actual settlement amount will be displayed (i.e. \$105) in the settlement confirmation.

H19. How will an LC manage a tolerance amount instructed by its client that is larger than the CCASS tolerance?

Synapse does not manage tolerance amounts. Synapse will simply deliver instructions based on the amount provided from CTM™. Changes to settlement amount (e.g. via tolerance) will need to be managed in C3T. The final settlement amount in Synapse will reflect the settled amount from CCASS.

H20. What happens if an AM sends an instruction to the GC directly, while also using Synapse to send an instruction to the GC?

Synapse will deliver all matched agreed instructions received from CTM™ to the GCs accordance to the pre-set static collected during the fund onboarding process, so AM participants need to ensure duplicated instructions are not sent to their GCs.

H21. What happens if the GC/LC relationship component of a fund profile is not updated in Synapse, and Synapse sends an instruction to the incorrect LC?

As long as either the GC or the LC does not submit its approval, Synapse will not deliver an SI into CCASS. Therefore, in this instance, the GC should either withhold its approval, or ask the LC to withhold its approval as well.

The rectification actions would be:

- a) AM to cancel the original trade in CTM™
- b) GC to update the fund profile in Synapse with the correct LC
- c) AM to reinstruct the trade in CTM™
- d) GC and (updated) LC can now approve the trade in Synapse

It is important for all parties to ensure ALERT SSI and Synapse have the most updated information.

H22. If an LC has rejected a Synapse instruction (e.g. client has insufficient securities), how can it subsequently approve the trade again (e.g. after client provides sufficient securities)?

If a GC/LC/CP initially submits a rejection for a Synapse instruction, they can subsequently send an approval which will automatically override the initial rejection. The instruction will then continue to be processed in Synapse. However, note that once an instruction has been approved in Synapse, it cannot be subsequently rejected.

H23. What is the difference between "rejecting a trade" and "not sending approval until cutoff"?

Irrespective of whether a GC, LC or CP rejects a trade or withholds its approval, the same result will occur. Synapse will not deliver the instruction to CCASS for that particular buy/sell-side chain. However, the key difference is the transparency. If a rejection is submitted, other parties on the chain will know that participant has performed its validation

on the settlement instruction (resulting in a rejection). If an approval is simply withheld and no action is taken, other parties on the chain will not know if the participant is withholding its approval on purpose, or if it was an unintended omission.

H24. For an instruction settling on T+0, what is the impact if a GC or LC's approval is withheld until T+1?

Synapse will only deliver instruction that have been approved by GC and LC to CCASS.

If Synapse does not receive the required approvals on T+0, the instruction will not be delivered to CCASS. If the approvals are subsequently received on T+1, Synapse will deliver the instruction to CCASS on T+1, and the instruction can only be matched and settled on T+1.

I. Operations – Instruction Amendment / Cancellation

11. Can instructions be amended in Synapse?

Aside from the change in settlement mode (refer to [FAQ Section J](#)), instructions cannot be amended via Synapse. Amendments will need to be sent via cancellation and replacement in CTM™, or alternatively amended in C3T directly, assuming the trade has not been settled.

Please note that amending certain fields in C3T may lead to a "No Further Processing (NOFP) status" in Synapse (e.g. ISIN, quantity, settlement currency, instruction type, processing reference, counterparty, client account number or stock code). The NOFP status is final unless the change in C3T is reverted back to the original state.

12. How can instructions be cancelled in Synapse?

Synapse will receive a "match agreed cancellation" from CTM™ and begin the cancellation process. Synapse will first identify the latest status of the instruction before performing any cancellations. If the instruction has already been "Settled", the cancellation will fail and the status will display "Settled". If the status is not "Settled" (e.g. Matched or Unmatched), Synapse will take the required action to revoke or to delete the instruction in CCASS.

13. How are cancellations handled where the LC and CP are the same party?

For instruction where the LC and CP are the same entity, Synapse will deliver an STI to CCASS (as opposed to an SI). Matched agreed cancellations received from DTCC will be treated in the same way irrespective of STI or SI. For details of cancellation flow, please refer to [Question 12](#).

14. Will a "Failed Cancellation" status be sent to AM, GC & LC?

No. There won't be a "Failed Cancellation" status. Synapse will query from CCASS the latest status of the trade. If the cancellation is successful, a "Cancelled" status will be displayed. If the trade has already settled in CCASS, Synapse will directly display a "Settled" status.

15. Will a new instruction be linked to a previously cancelled instruction in Synapse?

Each trade will have a unique UTI reference linked to an SCV. For "Matched cancellation", Synapse will look for the original instruction and deliver the cancellation request to all parties (GC/LC/CP).

A trade's UTI will be carried in the instructions of a trade for its entire lifecycle, including all amendments and cancellations. However, if a trade is fully cancelled and a new trade is independently received, that new trade will be assigned with a new UTI.

J. Operations – Settlement Modes

J1. What CCASS settlement modes do you support?

Synapse supports DVP, RDP and FOP.

J2. Can the default settlement mode of the fund profile be updated by the AM?

After a fund has been set up in Synapse, the AM can initiate changes to the account profile to amend default settlement mode.

On an instruction by instruction basis, an AM can rely on the RTGS indicator (YRTG/NRTG) to override the default settlement mode. This RTGS indicator is one of the pieces of information on the SM that DTCC sends to Synapse.

J3. Can the settlement mode of an approved instruction be changed once it has reached CCASS (whether matched or unmatched)?

On an instruction by instruction basis, the settlement mode of an instruction that has reached CCASS can be changed via Synapse (API or UI), and this can be initiated by either the LC or CP, and accepted by the other party.

For example (assuming both the buy-side chain and the sell-side chain are on Synapse), an LC can initiate a settlement mode change (from RDP to DVP) for a matched SI via Synapse. The CP will need to confirm the change and once approved, Synapse will revoke the matched instruction from the LC side in CCASS and instruct new SIs for both sides, retaining all the same economics of the original trade, with the exception of the new settlement mode.

Note that for a settlement mode change, beyond the original initiation and acceptance by counterparty, no additional approvals from other parties will be required (e.g. AM, GC, EP).

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