

## CXA Customer Call 1 September 2022 – Question and Answer responses

#### How long will the legacy connectivity be supported, and when will this be phased out?

Auto-forward from the existing Chi-X connections to the Cboe Tech infrastructure will be supported for a limited time.

- For Equinix SY2 connections this will be available from 12 Sep 2022 until Q4 2023.
- For Global switch these will initiated during Q4 2022 [date tbc] until early Q2 2023.

Cboe Australia recommends all participants and vendors arrange new cross-connects for both data centres prior to go-live to achieve optimum latency.

Where can we find the network information such as multicast, retransmission server IP, Cboe business LAN, any limitation to the customer LAN segment for both Prod and Test environment?

#### When multicast info become available?

Information pertaining to the multicast configuration specification can be found within the CXA Multicast PITCH Specification and CXA Connectivity Manual documents available on the CXA Technology Migration microsite (https://cxa.cboe.com).

The Certification (test) environment now has our 'auto generation' script running to produce frequent order entry and trade traffic.

Do we order cross-connects through the web portal or through the Equinix rep? Do we need a Letter of Authority to do so?

Customers must order a Cboe port through the Cboe web portal.

A Letter of Authority (LOA) will be issued in response

Customers can then order the cross connect through your data centre representative, including the LOA material.

Please see section 4.1 of the Cboe Migration Technical Overview for further information.

#### Does the waiver apply to both SY1/2/5 & Global Switch?

The waiver applies to Equinix cross-connects to the Latency Equalization layer prior to 27 Feb 2023.

In order to test gap recovery of PITCH multi-cast market data, will Choe be able to simulate dropped packets? Will dual feeds be available to help test arbitrage functionality to avoid issuing gap fill requests?

Cboe is currently evaluating this request and will provide further updates via the CXA Technology Migration microsite and weekly communications once this analysis has been completed.

## Is there any estimate for the latency disadvantage in using legacy connections to SY2 in production?

Once the Cboe Tech Production platform becomes available (from 22-Oct), Cboe teams will be able to monitor latencies between new LE connections and legacy connections and share observations with clients.

Clients are encouraged to order and implement new cross-connects to the Cboe LE (Latency Equalization) solution as soon as they can accommodate the change.

## As a participant, can we rely upon our vendor certification or do need to pass a participant certification as well?

Participants may rely on vendor certification for those systems they use. Proprietary/in-house systems will require their own certification. Further, Cboe encourages all Participants to test and verify certified order management systems in Cboe Tech Production to ensure these match expected business outcomes.

We have two different Data Centres (DC) and we aware Cboe have feeds A, B & E. Can we use Feed A/B for our primary DC and feed A/E for our 2nd DC?

Yes, Participants are free to determine the appropriate combination of these 3 streams as needed to suit its resiliency needs. Section 1.1 of the PITCH Specification provides further information.

We are a client of a participant and want to know whether we need to have web portal access as our participant said they will be applying logins on behalf of us?

Participants may order FIX/BOE logins on behalf of clients for order entry and Purge ports for order cancellation purposes.

## When is Choe conducting weekend testing for its Production environment?

Cboe will conduct weekend testing across 6 weekends between 22 October 2022 and 25 February 2023. Participants are encouraged to participate on these weekends as they will represent the most comprehensive use of the environment by concurrent users across the available test window. Please refer to the Migration Timeline on the Migration site for details.

## After 24-Oct, from Mon to Fri, during business hours, it's only for participants to test on their side?

Following certification completion and from 24 October 2022, Monday to Friday, <u>all clients</u> are encouraged to use the Cboe Tech Production environment to validate its business and technology operations consistent with its requirements.

In the Connectivity Manual, all IP addresses and ports are in a range. Will there be a dedicated IP and port assigned to our login ID when we have applied from the web portal?

Assigned IPs and ports will be available via the Cboe web portal from 12 Sep 2022, should Participants require additional logical ports (logins) these may also be ordered through the portal.

The Certification environment only has an A feed for market data, is that correct?

Correct

## Do we need to certify non-trading services such as a Trade Feed?

Certification scripts for order entry (FIX, BOE and purge port sessions) are now available on the customer web portal. There are no certification scripts for market data sessions or listener sessions (such as ODROP drop copies) in Cboe markets.

## Will there be a separate market data connectivity guide please?

All market data connectivity is included in the CXA Connectivity Manual, further detail on PITCH and TOP can be found within the CXA Multicast PITCH Specification and CXA Multicast TOP Specification, respectively.

Are we able to request multiple logins to facilitate support for various dev/test environments? Currently for Chi-X, we are only issued 1 set for the test environment.

Cboe will pre-populate many of your Cboe tech Certification (test) environment logical ports (logins), prior to 12-Sep-2022, based on your current logins in the Chi-X system test environment, PTE.

For example, if in PTE you have 5 FIX and 3 CHIXOE and 1 Trade Feed, then in the Cboe tech Certification environment we will setup 5 FIX and 3 BOE and 1 FIX Drop.

From Monday 12-Sep-2022 you will be able to access the 'Logical Ports' section in the client web portal to further adjust your logical port (login) subscriptions and configure FIX Port attributes (as referenced in section 8 of the FIX specification), at your convenience.

## Can we order Racks and connectivity at SY5 1st floor?

Latency Equalization cross-connects are not available to SY5 Level 1, Cboe Australia recommends participants connect via the Latency Equalization layer available via SY1, SY2 and SY5 Ground Floor.

## Is the web portal the same to be used for other Cboe sites (like Japan, Europe)?

The Customer Web Portal deployed for Cboe Australia has the same entry point/ URL as Cboe use across Europe and North America. Users' setup for Cboe Australia's Customer Web Portal will only be able to request connectivity or sessions for and interact with Cboe Australia's Cboe Tech environments.

## The pricing schedule is it on migration or customer portal?

Cboe Australia expects to publish the pricing information via a Market Operations Notice before mid-November.

# What is the testing and Go Live plan for Cboe BIDS and when will we be able to order the testing lines for BIDS?

The BIDS Certification and Prod environments will be accessible on the same cross-connects as for Cboe Tech or using the auto-forward option over existing cross-connects. The dates for BIDS Certification environment access will be provided in due course, please continue to check the CXA Technology Migration microsite for the most current information.

#### What is the certification script?

Certification scripts for order entry (FIX and BOE) and purge port sessions have been made available on the customer web portal. Once you have passed certification for your application then the relevant FIX, BOE or Purge Port logins can be provided for the Production environment.

There are no certification scripts for market data sessions or listener sessions (e.g., Market Data and drop copies) in Cboe markets.

## Usually, an exchange provides some manuals for test or certification. Has Cboe published such documents?

Certification scripts for order entry and purge port sessions have now been made available on the customer web portal. There are no certification scripts for market data sessions in Cboe markets.

## Please publish full transcripts of your public Q&A sessions.

A recording of all public Q&A presentations are published on the microsite.

#### How do we confirm the network connectivity on the new cross-connects?

Network test details will be provided once new cross-connects are established.

## Will a test checklist submission requirement be issued before the go live date?

Further information regarding pre-go live\* checklists will be provided in due course, please continue to check the CXA Technology Migration microsite for the most current information.

\*27-Feb-2023, subject to regulatory approval

# Can cross-connects from SY2 to the SY5 ground floor Latency Equalization layer be ordered currently? Or are these via SY2 only at this stage?

New SY2 cross-connects for the Latency Equalization layer are available now and may be ordered via the Cboe Client Web Portal outlined within the Cboe Migration Technical Overview (pg. 5). New SY5 ground floor cross-connects are on hold until the build is completed, we anticipate this to be the case until at least mid Q4 2022.

Clients in SY2 are advised to connect to the LE is SY2 for example, for optimum latency.

## When will the customer portal be available?

Cboe Customer Web Portal access has been available since 1 September. Please let us know if your request has not been fully resolved.

## How are you managing vendors being ready with sufficient time to allow brokers time to integrate their own systems

Cboe is proactively and regularly engaging vendors & Participants alike. Key vendors are working closely with Cboe to ensure our shared customers are best placed to commence testing as soon as possible. Cboe encourages Participants to discuss project readiness and timelines with their vendors as soon as possible. In addition, Cboe is keen to participate in any tri-partite conversations with vendors and Participants to discuss any specific needs or use cases.

## Is the Cboe Market Data cloud implementation available from 12 Sept in CDE?

We are working with US colleagues to progress the Global Cloud deployment for Cboe Australia and its access to the Cert Cboe Tech environment. Cboe will provide further updates via the CXA Technology Migration microsite and weekly communications once this has been completed.

Please contact the Trade Desk tradedeskau@cboe.com with all queries.