

Cboe Global Markets MATCHNow Technology Migration

Client Conference Call

Tuesday, September 7, 2021, 12:30 PM Eastern

CORPORATE PARTICIPANTS

Gary Compton - *Vice President of Corporate Communications*

Bryan Blake - *Vice President, Head of Canadian Equities*

Dave Nolan - *Manager, Canadian Equities Trade Desk*

Vince Poil - *Director, Canadian Equities Product Management*

Steven Flaming - *Director, Canadian Equities Sales*

Phillip Cockrell - *Director, Network Operations*

Adel Sarhan - *Vice President, BIDS Trading Product Management*

Cole Chmielewski - *Vice President, Operations*

Troy Yeazel - *Senior Vice President, Operations*

Eric Crampton *Executive Vice President and Chief Technology Officer*

PRESENTATION

Operator

Good day and welcome to the Cboe Global Markets and MATCHNow Technology integration client conference call.

All participants will be in listen-only mode. Should you need assistance, please signal a conference specialist by pressing the "*" key, followed by "0".

After today's presentation, there will be an opportunity to ask questions. The Q&A is intended for clients only. To ask a question, you may press "*" then "1" on your touchtone phone. To withdraw your question, please press "*" then "2". Those listening through the webcast may submit questions throughout the event by typing your question in the "Submit Question" box on your screen.

Questions will be addressed after the prepared remarks have ended. Please note this event is being recorded.

I would now like to turn the call over to Gary Compton, Vice President of Corporate Communications at Cboe Global Markets. Please go ahead.

Gary Compton

Thank you operator and thank you all for your time today. Joining us on the call today are Bryan Blake, Vice President, Head of Canadian Equities and Dave Nolan, Manager, Canadian Equities Trade Desk.

Following their prepared remarks, we will hold a Q&A session for clients only. Also joining us for the Q&A will be Vince Poil, Director, Canadian Equities Product Management; Steven Flaming, Director, Canadian Equities Sales; Phillip Cockrell, Director, Network Operations; Adel Sarhan, Vice President, BIDS Trading Product Management; Cole Chmielewski, Vice President, Operations; Troy Yeazel, Senior Vice President, Operations; and Eric Crampton, Executive Vice President and Chief Technology Officer.

Clients on the phone can queue up for questions by following the operator instructions at the end of today's prepared remarks. If you are online, you may submit a question via the box and "Submit Question" button on the right-hand side of your screen.

If you are a journalist or analyst, please reach out to the Corporate Communications and Investor Relations teams, and they will address any questions you may have separately. In addition, I'd like to point out that this presentation will include the use of several slides, which are on the migration microsite.

As a preliminary note, you should be aware that this presentation contains forward-looking statements, which involve some risks and uncertainties. Actual results may vary. Please refer to Cboe's issuer filings with the U.S. Securities and Exchange Commission for more detailed information about the risks and uncertainties.

Also note that the planned technology migration of MATCHNow that we will refer to today is currently pending review and approval by Canadian regulators. All planned dates and timelines are subject to change without notice. Now, I'd like to turn the call over to Bryan Blake.

Bryan Blake

Thank you, Gary. And welcome everyone. I'm pleased to speak with you all again.

In the time since our last industry call in June, our team has been working closely with you to assist in your ongoing preparations for our February 1, 2022 technology migration. We appreciate your active engagement with us up to this point, so please continue to share your thoughts and questions with us. We want to be sure you have everything you need to complete your preparations for migration.

I also want to thank you for the feedback you've been sharing with us on our Cboe LIS powered by BIDS offering. We're hearing a lot of excitement on the street from both buy- and sell-side for Cboe LIS, our enhanced Conditionals functionality.

As we detailed on our June call, since launching in 2016, Cboe LIS in Europe has grown into one of the largest block platforms in Europe. I'm pleased to share that in August, for the first time ever, Cboe LIS was the largest European block trading venue with market share over 30 percent. Additionally, Cboe LIS in Europe experienced a higher average trade value and more above-LIS trades than any other conditional block venue during the month. The largest single trade of any conditional block venue also occurred on Cboe LIS in August.

We're excited to bring the Cboe LIS Europe playbook to Canada and build on the exciting momentum we're seeing in Europe. Leveraging the LIS model and the BIDS technology and its extensive distribution network will open up a world of possibilities for the Canadian equities market. We, like all of you, look forward to launching Cboe LIS in Canada in 2022 as we look to build an even more robust electronic block offering in Canada.

In the spirit of ensuring you have everything you need to prepare for migration, we join you today to reconnect as we enter the critical window in our migration preparation timeline. We're five months out from our February 1st cut-over, and while it seems like a long way off, the calendar gets compressed quickly when you start factoring in the end of year holidays. And once we hit January, we'll be a few short weeks away from the finish line.

So, the time is now to get the bulk of development work done. September through November is the time to get connected, certified and start your testing. If you haven't yet, I encourage you to prepare for and complete this work as soon as possible.

I'll wrap up by saying that we're laser-focused on executing a seamless technical and operational migration. To ensure a smooth migration, collaboration is critical. We are fully aware that the work required for this migration is a big ask of you, and we recognize the additional work you and your firms will be putting in over the coming months to meet our migration date. We're fully committed to supporting you in your preparations, and our team stands ready to work alongside you to make sure you're ready for Day One. So, please keep engaging with us. Your continued feedback is very welcome at every level of our teams.

With that, let me hand it over to Dave to touch on some of the key tasks and dates we'll be focused on in the months ahead.

Dave Nolan

Thanks, Bryan and welcome to everyone on the call. We really appreciate you joining us once again today.

As Bryan mentioned, we are entering a key phase of the migration, with the next couple of months critical to the preparation work needed to be ready for the planned February 1st migration date, so I'm going to spend the next few minutes walking through some of the specifics related to connectivity, certification and production environment testing. Let's get started with connectivity.

As you've heard on our previous calls, MATCHNow connections to Cboe technology will require new physical connectivity to be established in the TR2 data center in Toronto for both production and certification system access, and to the CH2 data center in Chicago for disaster recovery system access.

Both data centers will support one and ten gigabit connections and, as of last week, we are now accepting orders for physical connections to the MATCHNow platform.

Clients within the TR2 data center will have latency-equalized access to the new trading platform once transitioned to Cboe's technology and network infrastructure.

Cboe's latency equalization solution has been designed to ensure no connections within the production data center will have a performance edge based on proximity to its trading systems. To equalize the latency across Subscriber connections, an estimated 8 to 10 microseconds of round-trip latency will be incurred for all connections, and the latency tolerance level between each connection is being engineered to single digit nanosecond levels.

We strongly encourage clients to establish connectivity to both the TR2 and CH2 data centers to minimize service disruption in the event of an issue at either data center. On a normal trading day, clients may receive market data from Chicago. They may connect and heartbeat with order entry systems in Chicago, but any orders submitted to this new DR site will be rejected until MATCHNow declares the primary site in Toronto "down."

It will be the responsibility of each firm to select your data access provider and to arrange for connections to the TR2 and CH2 data centers. MATCHNow supports the following network connectivity choices: IPSec, VPN via the Internet - this is only for certifications or test sessions; co-location cross-connect for clients co-located in the Toronto TR2 data center; we'll also support extranet connectivity; and lastly, private line ethernet circuit extension from a carrier to MATCHNow is also supported.

A Cboe Customer Web Portal account is required to request a new cross-connect or to decommission existing connectivity to MATCHNow. Please contact your firm's account administrator or the MATCHNow Trade Desk to set up an account if you don't already have one established.

Lastly, as a reminder, Cboe will not assess connectivity fees for connections to the new trading platform prior to the launch and production activation of the platform.

Additionally, within TR2, Equinix is offering a waiver for the initial cross-connect install fee and Monthly Recurring Charges from September 1, 2021 through January 31, 2022 for cross-connects run to the new MATCHNow latency equalized network. To receive these waivers, you must first contact your Equinix representative directly to obtain the necessary paperwork. Cross-connect requests submitted via the Equinix portal will not receive the waiver.

Further details can be found in the MATCHNow Technical Integration FAQ, which is available on the main page of the migration microsite at matchnow.cboe.com, under the heading “Technical Specifications.” In addition, you will find the Connectivity Manual and the latest version of other technical specification manuals on the Cboe Canadian Equities Document Library page, that’s also linked in the same section on the microsite.

Turning to certification, it’s important to note that existing MATCHNow certification sessions cannot be used to certify on the new MATCHNow trading platform. There will be no automatic transfer of certification sessions from the legacy MATCHNow platform to the new Cboe platform. Firms must first establish physical connectivity to the TR2 data center before requesting new certification sessions for Cboe technology.

Once a firm has established physical connectivity within the TR2 data center, free-of-charge certification order entry, market data and drop copy sessions may be requested via the Logical Port Request form that is available within the Customer Web Portal. Firms must specify any desired changes to default port settings within the Customer Web Portal as well. The default settings can be found in the FIX specification that is available on the migration microsite. The FIX certification script that firms are required to complete can be found within the Certification tool on the Customer Web Portal.

All firms will be required to certify for basic functionality, including establishing and maintaining connectivity, basic order entry functions and recovery of the session following a disconnect. While firms are expected to certify for all functionalities they expect to use, they are only required to certify for order types and order modifiers they intend to use in production.

Beginning on Monday, September 13th, firms may start ordering logical access to the certification environment and may begin to work through completion of the required certification process. Certification sessions will be available Monday through Friday during normal trading hours and firms will have the ability to trade all symbols available in production on their certification sessions.

Once firms have completed and submitted their certification script through the Certification Tool available in the Customer Web Portal, they may begin ordering FIX and drop ports within the new production environment. Production ports may also be requested using the Logical Port Request tool, but until certification has been completed, firms will not be allowed to input any orders on the new production system, including during the designated weekend tests.

Firms will have the ability to self-certify, if they would like, by using the Cboe Conformance Certification Tool on the Customer Web Portal. This tool may be used to perform and submit an unattended MATCHNow certification.

Of course, for those of you who don’t want to self-certify through the Customer Web Portal, you can call the MATCHNow Trade Desk to schedule a time to have our team assist you with your certification. We’re more than happy to help walk you through that process.

In order to avoid any delays and/or undesired rescheduling, we advise firms to complete sufficient unattended testing throughout their certification appointment.

I also want to mention that testing of our new enhanced conditionals offering, Cboe LIS powered by BIDS, will be available beginning the week of September 20th in the new MATCHNow certification environment.

As mentioned, you will not be able to trade in the production environment until your firm has completed its certification.

Once certified, firms will receive an electronic copy of their completed certification script. From that point, firms will be able to request and connect to FIX sessions created in the production TR2 data center with those functionalities enabled.

It's important to note that all new production sessions will be created with the Cboe default session settings, regardless of any prior production or certification settings. So, firms must specify any desired non-default settings when requesting new production sessions.

Once ports are created, firms will be able to view all of their ports and port settings through the Customer Web Portal, within the Logical Ports tool.

Firms will be able to access new production sessions for the first time during a weekend test opportunity that will be offered on Saturday, October 16th. Following this test, we plan to open the new production environment for testing with test symbols on a daily basis starting October 18th. Trades completed using test symbols in the production environment will appear on the MATCHNow PITCH market data feed and also in any new drop copy sessions that have been requested for the production environment.

Lastly, I want to highlight the key upcoming dates related to the weekend testing that you should be aware of.

We're planning to host five weekend tests leading up to our February 1, 2022 migration. Firms should plan to participate in at least one weekend test, but if possible, we encourage you to join as many of these tests as you can to ensure that you're prepared.

Our first weekend test, as mentioned previously, is next month on Saturday, October 16th. Clients that have completed their certifications and requested logical ports in the production environment prior to this date will be able to participate in the October 16th weekend test.

Other weekend tests are scheduled for November 13th, December 11th, January 15th and January 29th.

December 11th will be our test in the disaster recovery environment. Firms will need to have connectivity established to the CH2 data center in Chicago in order to participate in this DR test. While this test is optional, it will be the only opportunity for DR testing prior to go-live, so we strongly encourage you to participate in this test.

Please note that for all weekend testing opportunities, we intend to have a contingent of Trade Desk and Network Operations Center staff available for customer support needs. So, please don't hesitate to reach out for assistance with any questions or to raise any issues.

As I wrap up, I'd just like to sum up some of the key points just touched upon before we move to the Q&A session.

MATCHNow connections on Cboe technology will require new physical connectivity to be established in the TR2 and CH2 data centers.

Cboe will not assess additional connectivity fees for connections to the new trading platform prior to the launch and production activation of the platform.

Physical connectivity access to the certification and production environment is now available and beginning next week, firms may begin ordering logical ports to the new certification environment.

Please note, you will not be able to trade in the production environment until your firm has completed its certification.

The new production environment will be made available for testing on a daily basis with test symbols, Monday through Friday, starting on October 18th. The list of test symbols will be published very soon.

October 16th will mark the first of five weekend testing opportunities. Four of the weekend tests will be within the new production system and the December 11th test will provide an opportunity to test within our new DR platform.

The migration microsite is your source for all resources and updates related to the migration. You can find that microsite at matchnow.cboe.com.

We stand ready to work alongside you throughout your preparations. Please don't hesitate to reach out to one of your contacts in our sales or operations teams with any questions you might have on the migration.

You can also contact the MATCHNow Trade Desk at 416-861-1010, extension 0.

And with that, I'll hand the call over to our operator and Bryan to begin the Q&A session.

QUESTION AND ANSWER

Operator

We will now begin the question-and-answer session. To ask a question, you may press "*" then "1" on your touchtone phone. If you are using a speakerphone, please pick up your handset, before pressing the keys. To withdraw your question, please press "*" then "2."

You can also submit questions through the webcast by typing your question in the "Submit Question" box on your screen.

At this time, we will pause momentarily to assemble our roster.

Bryan Blake

Thanks, operator, we can get started with the Q&A. The first question came in online. The question is, "Will the market data feed be available via TMX CDF feed as it is today?"

Yes. MATCHNow will be contributing to the TMX IP, which is also the provider of the TMX CDF feed.

Checking with the operator, any questions online or on the phone?

Operator

Again, if you would like to ask a question, please press “*” then “1” at this time. I’m showing no audio questions.

Bryan Blake

We’ll just give it another minute.

Alright, thank you operator.

Operator

Thank you. This concludes our question-and-answer session. I would like to turn the conference back over to Bryan Blake.

CONCLUSION**Bryan Blake**

Thank you for joining us today. We’re headed into a critical phase of preparations for our migration. Our team is ready to assist you in your preparations, so please continue to remain engaged with us and don’t hesitate to reach out to anyone on our team with any questions or concerns or for anything you need.

Thank you and have a good day.

Operator

The conference has now concluded. Thank you for attending today’s presentation. You may now disconnect.

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