

# Cboe Technology Integration Customer Conference Call



September 5, 2019

## ❖ **Chris Isaacson, Executive Vice President, Chief Operating Officer**

- Welcome and update on timeline for C1 migration

## ❖ **Eric Crampton, Senior Vice President, Chief Technology Officer**

- C1 weekend testing and PAR workstations

## ❖ **Questions and Answers**

- Chris Isaacson
- Eric Crampton
- Anthony Montesano, Vice President, Market Structure and Functionality
- Jeromy Hiserote, Director, U.S. Options Trade Desk
- Andy Lowenthal, Global Strategy

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## **C1 technology migration planned for October 7\***

- ❖ C1 migration is the culmination of three years of planning and prep work
  - CFE and C2 migrations
  - SPX to Hybrid conversion
  - New index platform
  - Introduction of new floor terminals
  - Rollout of nine feature packs across BZX, C2 and EDGX Options Exchanges
- ❖ Working with all our customers, our goal is to continue defining the markets of tomorrow through cutting-edge technology that meets your evolving needs
- ❖ Critical work to be completed over these final days, we will be working alongside you to ensure you're ready to go on day one

## C1 certification and production environments available for testing

- ❖ All C1 Trading Permit Holders (TPHs), vendors and ISVs must certify to the new platform immediately
  - Contact the Cboe Trade Desk at 913-815-7001 or email [tradedesk@cboe.com](mailto:tradedesk@cboe.com)
- ❖ Logical order entry sessions created in new production environment
  - Based on logins in use on legacy C1 platform as of April 2
  - Port settings from legacy Cboe platform not carried over
  - Order additional logical ports or request unnecessary ports be deleted in new production environment
- ❖ Daily production trading with test symbols ongoing
  - To participate in daily and weekend testing, you must be certified to the new C1 production environment
  - **Daily certification testing:** Monday - Friday from 1:00 am - 4:15 pm CT
  - **Daily production testing:** Monday - Friday from 1:00 am - 3:15 pm CT

## Six weekend tests scheduled leading up to final migration

- ❖ Thank you to the customers that participated in the first three weekend tests
- ❖ **Upcoming weekend test dates:**
  - **September 14**
  - **September 28** (DR)
  - **October 5** (the final Saturday before migration)
- ❖ All TPHs with a floor presence are required to participate in **two** weekend tests, including October 5
- ❖ TPHs must certify in the C1 certification environment before participating
- ❖ DR logical sessions available on a continual 24x7 basis
- ❖ Each remaining weekend test will include a simulated VIX settlement
- ❖ OPRA and OCC to participate in each weekend test
  - Notify the OCC one week in advance of the weekend test if you want to reconcile trades from a weekend test with the OCC

## **PAR 3.0 planned to launch with the C1 migration\***

- ❖ PAR 3.0 will integrate Bats technology and incorporate exchange platform changes to enhance order handling and market data delivery to PAR
- ❖ Product demonstration and opportunities to interact with PAR 3.0 are available at the Reporting Desk at Post 10 on the trading floor
- ❖ New tools will replace those that are currently used to view and manage:
  - Order history
  - Clearing records
  - Printed tickets
- ❖ New tools will also replace PAR functionality
- ❖ Certification of the new floor support technology will be required
- ❖ MMTN messaging will be part of certification

## **Logical order entry sessions created based on logins in legacy platform and single DROP session created for each TPH**

- ❖ Logical port fees for FIX, BOE and Drop ports will be assessed the full month rates for October 2019 for logical ports existing on the new trading platform
  - C1 logical port fees for ports added on or after October 8 will be pro-rated
- ❖ Legacy CMI and FIX logins in use prior to October 7 on the legacy C1 system will not be billed during the October 2019 billing cycle
- ❖ Fees will be assessed for all Order Entry and Drop logical ports automatically created in April for users on the new trading platform unless removed upon request prior to October 7
- ❖ Fees for other ports (Purge, Spin Serve and GRP) will be pro-rated beginning October 7
- ❖ TPHs will no longer be charged for bandwidth packet fees and assessed fees for additional logical ports will be based on average daily orders by month
- ❖ TPHs may subscribe to an “Implied Logical Port Fee” report for new C1 trading platform by contacting the Cboe Trade Desk prior to migration
- ❖ TPHs will be required to use the Cboe Customer Web Portal for accessing invoices

## Unicast order entry and multicast market data obtained over same physical connection through latency equalized infrastructure

- ❖ Market participants may access new C1 platform on October 7 using legacy C1 platform physical ports or new latency equalized C1 physical ports
- ❖ New C1 latency equalized physical port established on October 7 or later to be pro-rated
- ❖ **January 31, 2020:** terminate legacy C1 access via legacy physical ports
- ❖ All legacy and new C1 physical ports will be included on October invoice
- ❖ **November 1, 2019:** fees for 1GB and 10GB physical ports modified
- ❖ Equinix offering waiver for initial cross connect install fee and up to six months of Equinix monthly recurring charges
  - Cboe will not bill for connections prior to October
  - Contact your Equinix representative directly to obtain paperwork for waivers
- ❖ Alternate Equinix Contact: Greg Nelson, Account Director
  - Phone: 312-994-3906
  - Email: [gnelson@equinix.com](mailto:gnelson@equinix.com)

## **Market-Makers and TPHs should work with Cboe Trade Desk to establish authorizations to appropriate tools on Cboe website**

- ❖ C1 Market-Makers (MMs) work with the Trade Desk to ensure:
  - Who will be maintaining the firm's MM list
  - Credentials are established to access the MM tool
- ❖ Firm's Web Portal Account Admin can designate users using the "User Management" tools in the Customer Web Portal
- ❖ Cboe will offer a Market-Maker Coverage Report that details a firm's quoting activity in registered symbols
  - Subscribe by emailing [tradedesk@cboe.com](mailto:tradedesk@cboe.com)
- ❖ You are required to notify Membership Services of any changes to the list of approved traders submitted with the firm's application
- ❖ TPHs must complete class appointments using the Customer Web Portal prior to October 7

## **Cboe Market Structure and Functionality and Trading Floor Operations teams hosting three town hall meetings in Chicago**

- ❖ Town Halls to provide additional details on C1 migration
- ❖ Floor-based broker groups, and MM firms and their compliance officers, strongly encouraged to attend
- ❖ First Town Hall held on **Wednesday, August 28**
  - Discussed management of floor permits and parking spots, MM class appointments, addendum to MM Give-Up form for business done by brokers on behalf of MM firms, and MMTNs
- ❖ **Upcoming Chicago Town Halls:**
  - **Tuesday, September 10 -- 3:30 pm CT, 4<sup>th</sup> floor auditorium**
  - **Wednesday, September 11 -- 3:30 pm CT, 4<sup>th</sup> floor auditorium**
- ❖ Plan to discuss Clearing Editor GUI, Order Lookup GUI and new Billing and Trade files, as well as answer additional questions related to the migration
- ❖ If you are in Chicago, plan on attending both sessions

## Team is hard at work and remains focused on executing a seamless technical and operational integration

- ❖ Connect and certify to the new C1 production environment as soon as possible to participate in ongoing daily and weekend testing
  - **Daily certification testing:** Monday - Friday from 1:00 am - 4:15 pm CT
  - **Daily production testing:** Monday - Friday from 1:00 am - 3:15 pm CT
- ❖ Upcoming weekend test dates:
  - **September 14**
  - **September 28** (DR)
  - **October 5** (the final Saturday before migration)
- ❖ Work on PAR 3.0 is underway, demos available at Post 10
- ❖ Logical order entry sessions created in new production environment, customers should be reviewing existing logical ports on new platform
- ❖ Logical port fees for FIX, BOE and Drop ports will be assessed the full month rates for October 2019 for logical ports existing on the new trading platform

## Summary (cont.)

- ❖ Logical port fees for ports added on or after October 8 will be pro-rated
- ❖ Fees assessed for all Order Entry and Drop logical ports automatically created in April for users on the new trading platform unless removed upon request prior to October 7
- ❖ TPHs no longer charged bandwidth packet fees
- ❖ Firms may be assessed fees for additional logical ports based upon the average daily orders entered by the firm over a given calendar month
- ❖ Contact the Cboe Trade Desk to subscribe to the “Implied Logical Port Fee” report
- ❖ TPHs that continue to use legacy C1 platform physical connections will be billed current C1 physical port fees through October 2019
  - Any new C1 latency equalized physical port established on October 7 or later will be pro-rated for the month
- ❖ New platform will allow access to both unicast order entry and multicast market data with a single physical connection through our latency equalized infrastructure

- ❖ **January 31, 2020:** Sunset legacy C1 platform physical connection access to the new C1 platform
  - Firms will be required to connect to the latency equalized network before January 31, 2020 through a new physical connection
- ❖ C1 MMs work with the Cboe Trade Desk to ensure who will maintain the firm's MM list and that they have established their credentials to access the MM tool
- ❖ TPHs must complete class appointments using the Customer Web Portal prior to October 7
- ❖ **September 10 and 11:** Town Halls in Chicago
- ❖ **October 7:** Planned migration for C1\*, there will be no parallel production period
- ❖ For all information, visit: [batsintegration.cboe.com/c1](https://batsintegration.cboe.com/c1)

# Q&A





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