Cboe Technology Integration Customer Conference Call

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Agenda

- **Andy Lowenthal, Executive Vice President, Co-Head, Markets Division**
  - Business update
- **Chris Isaacson, Executive Vice President, Chief Information Officer**
  - C2 migration update
  - Cboe Options Exchange (C1) planned migration date and initial roadmap
  - SPX to Hybrid
  - PAR 2.0
- **Questions and Answers**
  - Chris Isaacson
  - Andy Lowenthal
  - Eric Crampton, Senior Vice President, Global Head of Software Engineering
  - Troy Yeazel, Senior Vice President, U.S. Operations
  - Anthony Montesano, Vice President, Derivatives Market Structure and Functionality

Cautionary Statements Regarding Forward-Looking Information

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve a number of risks and uncertainties. You can identify these statements by forward-looking words such as "may," "might," "should," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential" or "continue," and the negative of these terms and other comparable terminology. All statements that reflect our expectations, assumptions or projections about the future other than statements of historical fact are forward-looking statements. These forward-looking statements, which are subject to known and unknown risks, uncertainties and assumptions about us, may include projections of our future financial performance based on our growth strategies and anticipated trends in our business. These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from those expressed or implied by the forward-looking statements.

We operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible to predict all risks and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

Some factors that could cause actual results to differ include: the loss of our right to exclusively list and trade certain index options and futures products; economic, political and market conditions; compliance with legal and regulatory obligations; price competition and consolidation in our industry; decreases in trading volumes, market data fees or a shift in the mix of products traded on our exchanges; legislative or regulatory changes; increasing competition by foreign and domestic entities; our dependence on and exposure to risk from third parties; our index providers' ability to maintain the quality and integrity of their indexes and to perform under our agreements; our ability to operate our business without violating the intellectual property rights of others and the costs associated with protecting our intellectual property rights; our ability to attract and retain skilled management and other personnel, including those experienced with post-acquisition integration; our ability to accommodate trading volume and transaction traffic, including significant increases, without failure or degradation of performance of our systems; our ability to protect our systems and communication networks from security risks, including cyber-attacks and unauthorized disclosure of confidential information; challenges to our use of open source software code; our ability to meet our compliance obligations, including managing potential conflicts between our regulatory responsibilities and our for-profit status; damage to our reputation; the ability of our compliance and risk management methods to effectively monitor and manage our risks; our ability to manage our growth and strategic acquisitions or alliances effectively; unanticipated difficulties or expenditures relating to the acquisition of Bats Global Markets, Inc., including, without limitation, difficulties that result in the failure to realize expected synergies, accretion, efficiencies and cost savings from the acquisition within the expected time period (if at all), whether in connection with integration, migrating trading platforms, broadening distribution of product offerings or otherwise; restrictions imposed by our debt obligations; our ability to maintain an investment grade credit rating; potential difficulties in our migration of trading platforms and our ability to retain employees as a result of the acquisition; and the accuracy of our estimates and expectations. More detailed information about factors that may affect our actual results to differ may be found in our filings with the SEC, including in our Annual Report on Form 10-K for the year ended December 31, 2017 and other filings made from time to time with the SEC.

We do not undertake, and we expressly disclaim, any duty to update any forward-looking statement whether as a result of new information, future events or otherwise, except as required by law. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof.

Welcome and Overview

Technology migrations are on track

- Making terrific progress on our multi-year, multi-exchange technology integration
- When completed, the migrations will deliver a better trading experience for customers by offering a common, world-class trading platform across all our equities, options and futures markets
- Team remains focused on executing a seamless technical and operational integration
- Committed to ensuring you continue to enjoy the same great trading experience and customer service you've always had with Cboe Global Markets
- As we work through the integration, your feedback remains critical, continue to share your opinions, ideas and questions with the Cboe team

CFE Migration – Thank You

Cboe Futures Exchange (CFE) successfully migrated to Bats technology on February 25

- After nearly a year's worth of planning and preparation, CFE's migration to Bats technology on Sunday, February 25th was a great success
- It was a tremendous joint effort between the entire Cboe team and you, our valued customers
- The feedback you shared with us along the way, your support throughout the certification and testing phases and your diligent preparations leading up to launch helped make this a smooth and successful migration and we thank you
- More trading firms participated on the first day of the new platform than did on the last day of the retired platform
- On Sunday, April 8th, we are planning to launch a new crypto market data feed delivered from the same new environment that serves CFE
- We believe better technology makes for better markets and our aim is to keep providing you the most efficient trading experience we can

Cboe Global Markets Business Update

Formation of new Markets Division aims to leverage expertise and strengths of our combined teams to better serve customer needs

- On Wednesday, we announced the creation of a new Markets Division at Cboe
- Unifies product, sales, business development and account coverage personnel across Cboe's U.S. equities, global derivatives, FX product lines and ETP listings business
- Each of these product lines will be supported by multi-asset resource teams
- As one unified and cohesive group, we can better coordinate our strategic and tactical approaches to this broader suite of asset classes and business lines, pool our resources more efficiently and prioritize projects – all aimed at better serving you and your experience working with Cboe
- We've eliminated product silos with the goal that every customer will have a single point of contact within the Markets Division
- This month marks the 25th anniversary of the Cboe Volatility Index and Cboe kicked off a "**#VIX25**" social media campaign this week to celebrate

C2 Migration Update

Planned migration of C2 is on track for May 14, 2018*

- Firms must establish physical connectivity to the new C2 latency equalized network infrastructure within either NY5 or NY4 data center or by using their existing connectivity, albeit at a slight latency disadvantage
- C2 access to the new platform from existing physical connectivity to the legacy platform will be decommissioned on **June 30th**
- All existing C2 certification logical sessions are being decommissioned and cannot be used to certify to the new trading platform
- Firms may request new certification sessions for C2 via the Logical Port Request form within the Customer Web Portal
- All firms will be required to certify for basic functionality
- **Now available**: daily trading of test symbols/series in the new C2 production environment
- **April 14th**: next weekend test opportunity
- **May 12th**: final weekend readiness test prior to migration

** Pending regulatory review*

C2 Migration Update (Cont.)

Saturday, April 14 test

- All symbols supported on the current trading platform will be made available for test trading
- **7:30 a.m. CT:** connectivity to production environment, pre-open queuing session begins
- **8:30 a.m. CT:** regular market session opens
- **11:00 a.m. CT:** regular market session closes
- TPHs and ISVs that have certified to the new C2 trading platform will be allowed to connect, submit orders and receive market data for the duration of the test
- OCC will be participating in test; customers will not be able to obtain any real-time clearing records, but may obtain DDS records for April 14th activity by submitting a testing request with OCC. The test trades will be executed in OCC's EXT5 external test environment.
- C2 certification trading platform will be submitting real-time clearing data to OCC's EXT3 external test environment every day, Monday - Friday, until **Friday, May 11th**
- OCC supports a minimum one-week lead time for all testing requests in order to confirm system and resource availability as well as to complete any pre-test verifications

C2 Migration Update (Cont.)

Final checklist for go-live date of May 14, 2018*

- You should have completed, or should be near completion of the following:
  - Performing certification in the certification/UAT environment
  - Receiving completed certification script
  - Requesting/connecting to production FIX or BOE sessions in NY5 or NY4
  - Specifying non-default settings for new production sessions
  - Establishing new logical order entry ports on new production platform
  - Deleting unnecessary ports within new production environment
  - Auditing production sessions to ensure desirable number prior to migration
  - Establishing appropriate risk setting levels
  - Testing through any and all ISVs used for trading
  - Successfully trading test symbols in new C2 NY5 production environment

- Now is the time to certify and test in production to ensure you are 100% ready to go
- **There will be no parallel period -- Monday, May 14th is a hard cut-over and the legacy platform will be shut off**

** Pending regulatory review*

Cboe Options Exchange Update

Planned migration of C1 is October 7, 2019*

- C1 migration will be the largest migration, requiring the most preparation
- Migration will involve every part of our organization and there will be numerous Cboe liaisons working with you and your firms in the lead up to October 7th, 2019
- This is an aggressive timeline, with numerous milestones along the way that will require your attention
- With the migration of Cboe Options Exchange, we look forward to providing a better trading experience with proven, world-class technology that seamlessly integrates electronic and open outcry trading

Additional key dates:

- **April 5th, 2018 (today):** new C1 technology integration website at batsintegration.cboe.com/c1
- **By November 16th, 2018:** technical specifications available
- **February 1st, 2019:** begin accepting new physical connections to new C1 platform
- **March 1st, 2019:** begin certification period for customer testing

** Pending regulatory review*

Cboe Options Exchange Update (cont.)

Planned migration of SPX to Hybrid is April 30, 2018

- The Hybrid market model will be built into Bats technology, but current market model for AM-settled SPX options (Hybrid 3.0) will not be replicated as part of effort
- Retiring the Hybrid 3.0 model and transitioning AM-settled SPX options onto the Command system's Hybrid platform

Some of the features in SPX to Hybrid conversion will include:

- Electronic quotes in symbol SPX will be allowed from all Cboe Options Market-Makers with an SPX/SPXW appointment
- Market-Makers will be permitted to quote in SPX, SPXW or both, with the continuous electronic quoting obligations independently applied to each symbol
- Market-Maker QRM risk protections will cause a user's quotes to be cancelled in both SPX and SPXW if a QRM limit is reached in either symbol
- The electronic simple and complex order book will be open to all participants, except that Market-Maker orders will not be permitted to rest in the COB after the opening rotation
- Market-Maker in-crowd requirements for interaction with the SPX simple order book, COB and electronic auctions will no longer apply
- Electronic allocation on simple and complex order trades will be pro-rata with no customer priority or Market-Maker participation entitlements

Cboe Options Exchange Update (cont.)

Planned migration of SPX to Hybrid is April 30, 2018

Additional notes on SPX to Hybrid conversion:

- SPX Market-Makers that intend to stream quotes are required to certify for electronic quoting and to confirm their QRM settings in advance of conversion
- Conversion applies only to SPX during regular trading hours and not to SPX during the global trading hours session, where SPX trades electronically only
- Market-Makers are reminded to manage their QRM and Q-Account settings for symbol SPX, as this will be first time Market-Makers will be permitted to enter electronically-accessible quotes in that symbol
- TPHs are responsible for contacting the Cboe Operations Support Center at 866-728-2263 or helpdesk@cboe.com if you have operational questions or require updates to Market-Maker profile settings
- Additional questions can be directed to the Cboe Market Structure and Functionality Team at msfmgt@cboe.com

Cboe Options Exchange Update (cont.)

Planned rollout of new PAR terminals to begin on November 5, 2018

- In advance of the full C1 migration to Bats technology, Cboe will introduce redesigned PAR workstations (PAR 2.0)
- PAR 2.0 will initially interface with the legacy Command system and eventually connect to Bats technology once full C1 migration is completed

PAR 2.0 will be rolled out in two phases:

- **Phase 1**
  - Begins November 5th, 2018 and is expected to be completed by year end
  - Incorporates new UX and functionality to interact with Cboe Options legacy system
  - Legacy PAR and PAR 2.0 will run in parallel until legacy PAR is decommissioned
  - New PAR user hardware to support changes was deployed at end of March, live beta testing in production to be offered October 1st, 2018
- **Phase 2**
  - Will interact with Bats technology and incorporate exchange platform changes to enhance order handling and market data delivery to PAR 2.0
  - Expected completion date will be ultimate C1 migration date of October 7th, 2019

Summary

C2 migration

- May 14th, 2018* go-live
- batsintegration.cboe.com/c2

Cboe migration

- Migration of SPX to Hybrid planned launch date of April 30th, 2018
- Introduction of PAR 2.0 planned to begin November 5th, 2018
- Technical specifications by November 16th, 2018
- Physical connectivity will be available on February 1st, 2019
- Plan to begin the certification period for customer testing on March 1st, 2019
- Planned migration for C1 is October 7th, 2019*
- batsintegration.cboe.com/c1

** Pending regulatory review*

Q&A

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