Agenda

- **Chris Isaacson, Executive Vice President, Chief Operating Officer**
  - Welcome and update on timeline and key milestones for C1 migration

- **Andy Lowenthal, Executive Vice President, Co-Head, Markets Division**
  - Planned enhancements to VIX settlement process

- **Eric Crampton, Senior Vice President and Chief Technology Officer**
  - Update on feature packs across options exchanges

- **Questions and Answers**
  - Chris Isaacson
  - Andy Lowenthal
  - Eric Crampton
  - Anthony Montesano, Vice President, Market Structure and Functionality
  - Jeromy Hiserote, Director, U.S. Operations Trade Desk
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.

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Physical connections to C1 platform in 1G or 10G

- **February 1, 2019:** new physical connections to the C1 platform accepted
- C1 will have dedicated network infrastructure and customer connections separate from U.S. equity, options and futures exchanges
- Equinix offering waiver for initial cross connect install fee and up to six months of recurring fees
- 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
C1 Migration: Planned Timeline

**New C1 certification and production environments available for testing**

- **March 4, 2019:** Certification environment became available for testing
  - To ensure readiness for migration, all C1 TPHs and vendors/ISVs must certify to the new platform
- **April 1, 2019:** Logical order entry sessions created in new production environment
  - Firms expected to review logical ports existing on the new platform
- **May 6, 2019:** Daily production testing with test symbols began
  - To properly prepare for migration, conduct numerous, wide-ranging tests
- **October 7, 2019**: PAR 3.0 to launch with the C1 migration
  - Certification of the new floor support technology will be required for each floor broker group
  - MMTN messaging will be part of certification for market-maker firms

* Pending regulatory review
**Five weekend tests scheduled in the new C1 production environment**

**Weekend test dates:**

- June 15, 2019
- July 27, 2019
- August 24, 2019
- September 14, 2019
- October 5, 2019 (the final Saturday before migration)

- OPRA and OCC to participate in weekend testing
- Customers should participate in as many weekend tests as possible
- Plan to simulate VIX settlements on at least three of the five Saturday tests, including June 15
Planned Enhancements to VIX Settlement Process

Enhance opening process used to calculate the settlement price for VIX futures and options*

- Enhance market data and Expected Opening Information (EOI) message content to include:
  - Depth and top of market PITCH/TOP feeds
  - Total buy and sell contracts at the indicative opening price
  - Status indicator
- EOI data made available from wider variety of channels
- Systematically enforce certain aspects of the process:
  - Only allow certain order types or quotes after a systematic cutoff time leading up to settlement
- Planned changes intended to encourage additional participation in the auction
- Further details available via the integration notices and specifications

* Pending regulatory approval and review
Rollout of the feature packs began in November and will continue through the third quarter of this year

- First six feature packs have been deployed
- **Feature pack seven**: Relates to global trading hours (GTH) and the opening process
  - **June 17, 2019**: GTH for DJX options available on C2 Options Exchange
  - **June 24, 2019**: GTH for XSP options available on EDGX Options Exchange
  - Testing now available in C2 and EDGX options certification environments
- **Feature pack eight**: Enhancements to complex crossing
  - Will include Market & Limit on Close orders, Complex AIM and Complex QCC
  - Certification and production date to be announced via Trade Desk notice
- **Feature pack nine**: Complex orders with stock legs
  - Certification and production date to be announced via Trade Desk notice

* Pending regulatory review
Integration website is home for all resources related to C1 migration

- Technical specifications
- Comprehensive FAQ
- Planned migration timeline
- Platform change matrix
- New platform features
- Downloadable implementation guides
- Information on customer calls – previous and upcoming

- batsintegration.cboe.com/c1
Summary

Less than five months to prepare for C1 migration to Bats Technology

- New certification environment available for testing
- **April**: Logical order entry sessions created in new production environment and customer review of existing logical ports on new platform commenced
- **May 6**: Daily production testing with test symbols available
- **June 15**: First of five planned weekend tests
- Incorporating several planned enhancements to VIX settlement process*
- Six of nine feature packs have successfully rolled out
- **June 17** and **June 24**: Feature pack seven will go live on C2 and EDGX, respectively*
- Work on PAR 3.0 is underway, demos available at Post 10
- **October 7**: Planned migration for C1*, there will be no parallel production period
- For all information, visit: [batsintegration.cboe.com/c1](http://batsintegration.cboe.com/c1)

* Pending regulatory review
Cboe will continue to define the markets of tomorrow through cutting-edge technology to meet our customers’ evolving needs

- Team remains focused on executing a seamless technical and operational integration
- Continue to share your feedback and questions throughout the certification and testing phases leading up to October 7* migration
- We look forward to providing a better trading experience with proven technology that seamlessly integrates electronic and open outcry trading
- We also look forward to providing our customers with a single, world-class trading experience across all our equities, options and futures markets

* Pending regulatory review
Q&A
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