



ISE: FREQUENTLY ASKED QUESTIONS

Closing

Q: What did Nasdaq acquire from Deutsche Börse Group as of June 30th?

Nasdaq, Inc. (“Nasdaq”) has completed the acquisition of the [International Securities Exchange](#) (ISE) from Deutsche Börse Group. In addition to [three electronic options exchanges](#) — ISE (now called Nasdaq ISE), ISE Gemini (now called Nasdaq GEMX) and ISE Mercury (now called Nasdaq MRX) (collectively “ISE”)— Nasdaq now operates [Nasdaq Precise, formerly called PrecISE Trade](#), the award-winning front end order management and execution system, as well as [ISE ETF Ventures](#) and [Longitude](#).

Lastly, as part of the transaction, Nasdaq gained an additional 20% stake in The Options Clearing Corporation, for a total of 40% ownership in the world’s largest equity derivatives clearing corporation.

Q. Why did Nasdaq make this acquisition? What are the specific benefits for Nasdaq?

We aim to offer a full service suite of products and functionality that attracts order flow from various segments of the industry. Specifically, adding ISE’s functionality expands our reach to a broader spectrum of clients.

We have a history of executing acquisitions efficiently and improving the market, including NASDAQ Phlx LLC (formerly the Philadelphia Stock Exchange), INET and Chi-X Canada.

We look to enhance the trading experience for all investors, and for all market participants, by means of fostering better execution, more innovation and seamless integration.

Q: Who do I contact with questions?

Main ISE contact numbers have not changed, which can be found here:

- Trade Desk: +1 877 473 9989 or helpdesk@ise.com
- Business Development: +1 212 897 0357 or bizdev@ise.com
- Technology Member Services (TMS): 212-897-0244 or tms@ise.com
- General Inquiries: +1 212 943 2400

An ISE Nasdaq Migration Contact List is available here: [Nasdaq ISE Migration Contact List](#)

Additionally, participants can contact Nasdaq Sales at sales@nasdaq.com. More information can be found on the Nasdaq website here: www.business.nasdaq.com/ISE.

Q. Who is on the management team and leading this initiative?

Kevin Kennedy, Vice President and Head of U.S. Options, oversees all of Nasdaq’s U.S. Options businesses, reporting to Tom Wittman, Executive Vice President and Head of Global Equities.

Nasdaq named Jeanine Hightower, formerly SVP, Business Development at ISE, as ISE Chief Operating Officer. She oversees the entire ISE business during the migration to Nasdaq's INET technology, reporting directly to Kevin Kennedy. In her role, Jeanine works closely with the U.S. Options team, including Aubree Greenspun and Greg Ferrari, to optimize and enhance the trading experience for all our customers.

Q. How does the acquisition of ISE tie in to Nasdaq's current offerings?

The acquisition fits squarely into Nasdaq's current Listed Options platforms. We will enable ISE customers to enjoy the benefits of INET and will look to expand PrecISE for use with various Nasdaq debt and equity platforms.

Q. How will both Nasdaq and ISE's current offerings be strengthened?

The sum of the two companies will be greater than its parts, enabling trading customers to enjoy both INET and Nasdaq Precise, formerly called PrecISE Trade.

By utilizing its existing options platforms and INET technology, along with ISE's complementary strengths, Nasdaq will build on its robust offerings to provide breadth and depth of products and services that benefit all market participants.

Rule Filings

Q. Where can I find the related rule changes for the Nasdaq GEMX (GEMX), formerly called ISE Gemini, Replatform?

Below are links to the rule changes related to the GEMX Replatform:

- [SR-ISE-2016-27](#)
- [SR-ISEGemini-2016-16](#)
- [SR-ISEMercury-2016-22](#)
- [SR-ISEGemini-2016-17](#)
- [SR-ISEGemini-2016-18](#)
- [SR-ISE-2016-31](#)

Technology

Q: What is the impact to technology for the ISE exchanges?

The ISE matching engine technology will be migrated to a Nasdaq supported architecture. Both the Nasdaq and ISE technology teams will work closely to create a seamless transition for customers. Nasdaq will assess the additional technology offerings, aim to minimize the impact to customers and strive to provide the best solutions possible. PrecISE clients should expect minimal impact.

Q: When is the ISE matching engine technology expected to be migrated to the Nasdaq supported INET architecture?

Below are the anticipated go live targets for the first day of trading of each ISE exchange on Nasdaq's INET technology:

- **Nasdaq GEMX (GEMX)** – complete
- **Nasdaq ISE (ISE)** – complete by July 31, 2017
- **Nasdaq MRX (MRX)** – August 14, 2017

Q: After the migration to the Nasdaq’s INET technology, where will the ISE trading systems be located?

After the systems migration, the ISE production trading systems will be located in the Nasdaq data center in Carteret, NJ and the DR trading systems in Chicago (CH4).

Q: Will I be able to use my existing Nasdaq connections to connect to the upgraded ISE trading systems?

Yes. Clients will be able to use existing Nasdaq connections (co-location handoffs, direct connects and POP connections) to access the ISE markets for trading and market data delivery. Clients can also use existing connections through [approved extranets](#) and other technology providers they may have in place. New IPs will be provided and new quote and order entry ports will need to be requested. More information will follow on these topics.

Q: If I do not currently have Nasdaq connectivity, how can I connect to the upgraded ISE trading systems?

Clients can order Nasdaq connectivity using the [CoLo & Connectivity Console](#) or [approved extranets](#) and other technology providers. Please contact [Mickael Avedissian](#) for more information on Nasdaq connectivity options and locations.

Models

Q: What are the market structure and pricing models on the current ISE exchanges?

ISE operates three customer priority, specialist (PMM) pro rata models, each with different pricing to attract different types of order flow. All three exchanges run on the same technology with the ISE platform supporting complex orders. Please see the three platforms below and their unique model type:

- **Nasdaq ISE** – modified make/take model, where quote performance dictates rebate/fee.
- **Nasdaq GEMX** – classic make/take model with a pro rata allocation.
- **Nasdaq MRX** – classic pricing model, which is determine by payment for order flow and customer tiers.

Q: Is Nasdaq changing the market structure and fees?

At this time, Nasdaq is not changing the market structure and fees. Nasdaq may update its fee schedules to not compete with other Nasdaq exchanges. As we continue to discuss opportunities and challenges with customers of ISE and Nasdaq, we will look to position these assets accordingly.

ISE Products

Q: What is Nasdaq Precise?

Nasdaq Precise, formerly called PrecISE Trade, is an award-winning, front-end order management execution system with more than 250 users providing full access to all order types supported by the ISE exchanges.

Q: What difference will I see in Nasdaq Precise post INET migration?

There will be limited changes to the functionality offered by Nasdaq Precise today that are outlined below.

Once Nasdaq Precise migrates to the INET technology Users will no longer see trade records aggregated at a deal/price level in the Trade Views. A post-migration development effort is being considered to provide similar functionality.

Day orders treatment after the market closes change:

- **Today:** T7 Nasdaq Precise sends outs/cancels for open day orders around 5:10 p.m. ET; if a participant's PrecISE terminal is open at this time, open day orders are marked as cancelled.
- **Post Migration:** INET Nasdaq Precise will show day orders as open after market close. Note, INET will not send "outs" for day orders.

Order Modifications handling change:

- **Today:** T7 Nasdaq Precise allows a participant to cancel or alter an order from any port within the firm.
- **Post Migration:** INET Nasdaq Precise will continue to allow cancels from any port within the firm, but alters will need to be sent from the originating port for the order.

In the future, Nasdaq will explore enhancements to the Nasdaq Precise offering. We are considering incorporating analytics and tools to further evolve the Nasdaq Precise system, including offering the system for other Nasdaq platforms such as equities and U.S. Treasuries.

Q: Will a new version of Nasdaq Precise be released due to the migration to INET technology?

Yes, a new version of Nasdaq Precise will be released and an alert will be sent containing upgrade instructions.

Q: Will Nasdaq require an upgrade to the newest version of Nasdaq Precise?

While the upgrade will not be required, it is highly recommended by Nasdaq.

Q: What happens if I do not upgrade to the newest version of Nasdaq Precise?

Without the upgrade to the latest version of Nasdaq Precise, the following will occur:

- The User will no longer have Kill Switch capabilities
- The User will no longer receive all reject messages.

Q: What are the other ISE products?

ISE ETF Ventures offers a broad range of capabilities in index development, licensing, financing, and marketing of exchange-traded products. It brings together issuers and investors to launch products (for example, capital raising).

Longitude is a technology that uses parimutuel principles to aggregate liquidity and produce fair and efficient prices for applications in a diverse range of industries.

Migration & Testing

Q: Is there a Migration Plan for the ISE trading systems?

Each of the ISE exchanges will be migrated independently to the new INET technology. As each exchange migrates, the migration will be done on a symbol by symbol basis. All open GTC and GTD orders in any underlying will be cancelled at the close of the business day prior to the respective symbol migration.

GEMX was the first of the three ISE exchanges to migrate to INET. The GEMX migration began on February 27, 2017 and was complete on April 3, 2017. The ISE migration commenced on June 12, 2017 and the MRX migration is targeted to commence on August 14, 2017.

Throughout the migration (except FIX as detailed in the [ISE Replatform Protocol Release Notes](#)) participants will need to utilize existing connectivity in NY4 using legacy ISE protocols to access symbols which have not yet migrated and new connectivity in Carteret leveraging the new SQF and OTTO protocols to access symbols which have migrated.

Q: When will a Test System be Available?

Test systems became available to participants in April 2017 for ISE. The test systems provide full functionality testing for ISE in a limited number of symbols.

Q: What test environments are available for participants?

Nasdaq Test Facility (NTF) Member Simulation

An NTF Member Simulation environment is available to participants. This environment will support all trading functionality (with limited capacity) including SQF, OTTO, FIX, Nasdaq Precise, CTI and Market Data Feeds. The NTF Member Simulation environment is available through the NY4 (via cross connect) and Carteret data centers.

The NTF Member Simulation environment is available Monday to Friday from 4:00 a.m. and 8:00 p.m. ET. Technical support will be available to participants using the NTF Member Simulation environment Monday to Friday from 8:30 a.m. to 5:30 p.m. ET.

Production Simulation

Participants will be provided with access to a Production Simulation environment which will support end-to-end full capacity testing of all trading functionality including SQF, OTTO, FIX, Nasdaq Precise, CTI and Market Data Feeds. The Production Simulation environment will be available on April 3, 2017 for ISE. Participants will be required to complete conformance testing in the OTF Member Simulation environment in order to test in the Production Simulation environment. The Production Simulation environment will be made available in the Carteret data center only.

ISE Conformance Scripts can be found at

http://business.nasdaq.com/media/ISE_INET_Conformance_V1.1_complex_tcm5044-42683.xlsx.

GEMX Conformance Scripts can be found at

https://members.ise.com/ISE/upload/Documents/568~1~ISE_INET_Conformance_V1.00.xlsx.

Please note that existing FIX and Precise connections will have access to both T7 and INET systems during testing and migration.

Q: Will weekend UAT testing be available?

Yes, two weekend UATs will be held for MRX:

See below for MRX UAT dates:

- August 5, 2017
- August 12, 2017

Q: Will Nasdaq Precise be impacted by the migration to INET?

No changes will be required of Nasdaq Precise users for the migration to INET. Nasdaq Precise functionality will be unaffected by the migration. Nasdaq Precise will support access to both the legacy and INET technology throughout the symbol migration period over existing IP connections.

Q: Will Business Units remain the firm identifier for ISE exchanges on INET?

No, as part of the replatform and in an effort to make firm identification consistent across all six Nasdaq options exchanges, firms will migrate from the six character Business Unit Identifiers utilized on ISE exchanges to a NASDAQ provided four character firm identifier. The current Business Unit Identifier will be mapped 1:1 to a new identifier. Matching engine functionality applied at the business unit level will remain unchanged and reference the newly provided Nasdaq firm identifiers mentioned above after the replatform is complete.

Q: Will the Disaster Recovery set-up be changing?

Yes, Disaster Recovery systems will migrate to the Nasdaq Disaster Recovery center in Chicago.

Q: When will IP addresses become available?

Port Request forms have been made available and IP addresses will be communicated as port requests are received. The Nasdaq ISE Subscriber services will provide IP addresses when available.

Q: When will participants be able to begin connectivity and heartbeat testing?

Connectivity and heartbeat testing is currently available for the replatformed ISE trading system. Contact Nasdaq Subscriber Services for details. MRX NTF will be available on July 17, 2017.

Quoting & Order Entry Interfaces

Q: Will the DTI Interface be supported?

No, DTI will no longer be supported. The Specialized Quote Feed (SQF) will be leveraged for market maker quoting capabilities. In addition, OUCH to Trade Options (OTTO) will be leveraged for simple order entry functionality and will be enhanced to support complex order entry functionality available on DTI today.

Participants will continue to utilize current DTI connections for each ISE market until a symbol migrates to the new INET platform for that market. Once a symbol migrates, all participants utilizing DTI will need to utilize either the Specialized Quote Feed ("SQF") to enter quotes or OTTO or FIX to enter orders. Once all symbols have been migrated to the INET platform for a given market, DTI will be retired on that market.

Q: What is Specialized Quote Feed (SQF)?

SQF is the bulk quoting interface utilized on Nasdaq Phlx LLC (“Phlx”), NASDAQ Options Market LLC (“NOM”), and Nasdaq BX, Inc. (“BX Options”). Market makers on ISE, GEMX, or MRX will be required to adopt SQF for quoting purposes. SQF provides capability for the submission of two-sided bid/ask quotes, auction responses, and book sweeps. SQF also offers market maker protections including curtailments and cancel on disconnect functionality.

The ISE SQF technical specifications can be found here: [Specialized Quote Interface \(SQF\) Version 8.1](#).

Q: What is Ouch to Trade Options (OTTO)?

OTTO is an order protocol that provides participants with a fast and efficient interface for entering orders and auction responses. Participants should note, the OTTO specification for ISE, GEMX, and MRX is drastically different than the current OTTO offering on NOM. The current instance of OTTO on NOM is an ASCII order entry application. The OTTO implementation for ISE, GEMX and MRX will be a binary order entry system, the same as OTTO utilized on the Nasdaq Equities exchanges.

****OTTO will support Auction Notification Messages for GEMX and MRX only. OTTO will not provide the Auction Notification Message for ISE.**

The ISE OTTO technical specifications can be found here: [Ouch to Trade Options 2.1](#).

Q: Are there Order Types or Functions which OTTO does not support?

OTTO does not support away market routing, STOP orders, GTC, or GTD orders. In addition, OTTO cannot be used on ISE, GEMX, or MRX for market maker quoting.

Note, unlike GEMX and MRX, OTTO will not provide the Auction Notification Message for ISE.

Q: Will the FIX API be changing?

There are a limited number of changes to the FIX API and related specifications which are detailed below:

- Contra party information will no longer be included on execution report messages.*
- FIX will no longer support the echoing of unsupported tags
- FIX will no longer perform the stale order check
- FIX will no longer support customer fix tag conversion

*Note: This information will be made available on the Clearing Trade Interface (CTI).

During the migration, a participant’s current FIX connection to ISE, GEMX and MRX may be utilized throughout that market’s symbol migration. Once the market completes its symbol migration, FIX participants will need to migrate to a new IP address and connect through the Carteret data center.

The FIX Bridge will reside in NY4 for ease of connectivity for participants. Additional details for specific functionality supported on the FIX Bridge can be found in the [ISE Replatform Protocol Release Notes](#).

Note, the FIX Bridge will be decommissioned effective after the close of trading on Friday, September 15, 2017.

The ISE FIX technical specifications can be found here: [ISE FIX INET 12.1](#)

The ISE Fix Drop technical specifications can be found here: [ISE FIX Drop 1.1](#)

Q: Will the ISE exchanges adopt the Clearing Trade Interface?

Yes, the Clearing Trade Interface (CTI) will be available for all ISE markets as they are re-platformed to the INET architecture.

Nasdaq will support two versions of CTI:

- [Clearing Trade Interface 1.5](#) will support backward compatibility to Phlx, NOM and BX Options existing CTI connections.
- [Clearing Trade Interface 2.1](#) will support extended field lengths required for ISE, GEMX and MRX.

Q: Is there a document that details all changes for the ISE protocol specifications?

Yes the [ISE Replatform Protocol Release Notes](#) details all changes that will be made to the protocols as part of the replatform.

Q: Will ISE liquidity and capacity codes be supported on the migrated exchanges after the replatform?

Yes, the ISE exchanges will continue to support all liquidity and capacity codes as they are supported on ISE exchanges today.

Q: Will Cancel on Disconnect function be the same on ISE exchanges on INET as they did on T7?

No, the cancel on disconnect functionality will mimic the offering on the Nasdaq exchanges. The trigger for the SQF, OTTO and FIX Ports are event and client application specific. The automatic cancellation of a market maker's quotes for SQF Ports, OTTO ports and open FIX orders, if elected by the member for FIX or OTTO Ports, entered into the respective SQF, OTTO or FIX Ports via a particular client application will neither impact nor determine the treatment of the quotes of other market makers entered into SQF Ports or orders of the same or other members entered into the OTTO or FIX Ports via a separate and distinct client application.

For example: If Business Unit ABC submitted quotes in underlyings XYZ and EFG over SQF Port 1 and also submitted quotes in both XYZ and MNO over SQF Port 2. If Port 1 disconnects, all quotes in XYZ and EFG will be purged from Port 1 and quotes in XYZ only will be purged from Port 2.

The SQF Cancel on Disconnect feature will be the same across all six Nasdaq options venues.

Functionality

Q: Will the functionality offered by ISE, GEMX, and MRX today change with the re-platforming to INET?

In general, the functionality currently offered on ISE, GEMX, and MRX will remain unchanged. However, a limited number of changes will be made to improve offerings and create consistency across all six Nasdaq options markets. The changes are noted below.

Q: Will Quote Handling change?

Quotes will be required to be submitted as a two-sided quote (bid/ask) over SQF as they are today on Phlx, NOM, and BX Options.

A new protection will be introduced to prevent quotes from trading or posting through the NBBO. If a quote is received which locks or crosses the NBBO, the quote will trade against ISE interest that may be part of the NBBO and will subsequently be re-priced and displayed a tick away from the NBBO price so as not to lock/cross the NBBO. The quote, which was re-

priced, will remain at that price until the participant updates its quote. If a quote is re-priced, a message will be sent over SQF to that participant indicating the re-price. The participant may cancel, purge or update its quote at any time.

Additionally, upon completion of the migration to INET simple quotes will be purged during a halt, consistent with quote treatment during a halt on Nasdaq exchanges.

Q: Will Quote Inactivation/Reactivation continue to be supported?

No. Quote Inactivation/Reactivation will be decommissioned and replaced with SQF Purge functionality.

Q: Will the ISE Exchanges continue to support Tick Worse functionality for market makers?

No. Tick Worse functionality for market maker quoting will be decommissioned.

Q: Will the ISE Opening Process change?

Yes. The ISE simple opening process will be replaced by Phlx's automated opening process. Minor enhancements will be made to the Phlx opening process to account for the ISE allocation model as well as ISE order types not supported on Phlx today.

With this new opening process, market makers on ISE, GEMX, and MRX will no longer request initiation of the opening rotation or set a parameter to allow the Rapid Opening Mechanism to automatically begin the opening process.

The ISE complex opening will remain unchanged.

Q: Will ISE Exchanges continue to support all order types supported today?

No, as part of the re-platform process the ISE exchanges will decommission Minimum Execution Quantity (MEQ) orders (simple and complex).

Directed Orders will not be initially available with the launch of the re-platform. This functionality will be offered again at a later date to be announced. Directed orders will be available on the current platform until a date to be determined and announced to participants.

Q: Will ISE Exchanges continue to support All-or-None (AON) orders as they function on T7 today?

No, as symbols migrate to the INET platform, AON orders will only be accepted as immediate-or-cancel (IOC). AON orders will continue to be accepted with all time in force designations on T7 as they are today. Once the symbol migrates to INET, an AON order must be submitted with a time-in-force designation of IOC.

Q: How will a cancel/replace or modification of an order be handled under INET?

With INET, the replacement or modification of an order will cause the original order to be canceled and the replacement order to be processed as a new order. This behavior will result in the early termination of a flash or exposure auction if the order had initiated such auction and the auction was ongoing at the time of receipt of the cancel/replace. In addition, all modified orders, regardless of the modification, will be subject to order entry validation checks.

Q: Will ISE, GEMX, and MRX continue to offer auctions?

- Yes, ISE, GEMX, and MRX will continue to support the auctions below. Flash

- Exposure (ISE only)
- Facilitation
- Solicitation
- PIM

Note, pending SEC approval, the Block Order Mechanism will be decommissioned effective February 21, 2017 on GEMX. The functionality has been turned back on for GEMX as of May 30, 2017.

Q: How can I submit auction orders?

Auction orders will continue to be submitted over FIX and may also be submitted over OTTO. PIM, Facilitation, and Solicitation orders must be submitted as a pair (buy/sell) order in one order message pursuant to the FIX/OTTO specification document.

Q: Which protocols or feeds will provide auction notification messages?

With the migration to INET, auction notification messages will be provided on SQF, OTTO, the ISE Combo Order Feed and the ISE Order Feeds for GEMX and MRX. Auction notification messages for ISE will be provided on SQF, the ISE Combo Order Feed and the ISE Order Feed, but will NOT be provided on OTTO.

Q: Will ISE auction response handling change?

Auction responses will be accepted over both SQF and OTTO. Auction responses will not be accepted over FIX.

Auction responses with a quantity larger than the auction size will continue to be accepted and limited to the auction size for determination of pro-rata allocation and execution.

On SQF, multiple auction responses will continue to be permitted, with participants limited to one response per firm. Modifications of responses will overwrite any prior responses.

Q: Will auction handling change in the event of a trading halt?

Yes, due to the underlying architecture, if an underlying halt occurs while an auction is in progress, the auction will terminate with no trade occurring. Both the auction order as well as response will be cancelled.

Q: Will all features of Complex be supported on ISE upon migration to INET?

Complex quoting and the legging of stock combo orders will not be initially available with the launch of the replatform. This functionality will be introduced onto INET at a later date. These functionalities will be decommissioned as each symbol migrates from T7 to INET for ISE.

Currently, T7 supports sending reject messages at the leg level for Complex Orders that are rejected. With the migration to INET, reject messages for Complex Orders on INET FIX will only be sent at the Complex Order level.

Q: Will INET continue to support five character MPIDs in the *StockLegGiveUp* Field over FIX?

No, INET will not support five character MPIDs in the *StockLegGiveUp* (tag 9076) Field. Currently, legacy ISE T7 FIX supports five character values for the *StockLegGiveUp* (Tag 9076) field on an incoming order. Stock Execution venues support four character MPIDs and currently T7 FIX removes the 5th character before the *StockLegGiveUp* is provided to a Stock Execution venue. While legacy T7 FIX will continue to accept five character MPIDs during the

migration period, INET FIX will not support the removal of the 5th character. Participants who wish to send orders with a *StockLegGiveUp* in underlyings trading on ISE INET during the symbol migration will need send a valid four character MPID in the *StockLegGiveUp* field. Participants utilizing the FIX Bridge will receive a reject of orders containing a five character MPID in underlyings which are trading on INET.

Q: Will QCC with Stock be supported on INET?

Regular QCC Orders will be supported and available on INET FIX only as symbols migrate, OTTO will not support QCC orders initially upon the migration to INET. Additionally, the electronic submission of the stock component of QCC with Stock Orders for Exchange handling will not be initially available. The Exchange anticipates supporting the electronic submission of the stock component of QCC with Stock Orders for Exchange handling on June 27, 2017. In addition, it is expected that when this feature becomes available on INET, the Exchange will support the routing of the stock component to Cheevers and Libucki and support for routing to FOG will be made available shortly thereafter (date to be determined).

Q: Will members be able to modify orders after the close?

Order modifications will not be accepted after close on any trading day. However, trade corrections and order cancellations will be accepted after close.

Q: Will order handling change when a Limit Up/Limit Down (LULD) state exists?

Yes, ISE Exchanges will conform to the Nasdaq methodology for LULD order handling. In general, the handling is consistent across the market centers today; however the following will change from the current implementation:

- The Exchange will not open an option if the underlying is in a LULD state and has not yet opened.
- Market (MKT) orders will be cancelled during LULD if they would otherwise be executed.
- Stop Market orders elected during LULD will be cancelled without a trade.
- Resting complex market orders will be canceled back to the member during a LULD state only if they become marketable.
- During a LULD state, a market order already in the system that initiated a flash or exposure auction will continue until the end of the auction timer. If at the end of the auction timer the LULD is lifted, the auction will be processed as normal. If the LULD is still in place at the end of the auction timer the market order will be cancelled without execution.

Q: Will Post Trade Allocation continue to be supported?

Yes, Post Trade Allocation will be supported over the FIX and OTTO interfaces at an individual trade level. Currently, DTI supports Post Trade Allocation requests at an aggregated deal level. This functionality will no longer be supported upon the completion of the replatform and with the transition from DTI to OTTO.

Note, Post Trade Allocation Acknowledgement messages will by default, be suppressed on FIX ports and participants should reach out to market operations to subscribe and bring receiving Allocation Acknowledgement messages

PreciSE will continue to offer Post Trade Allocation at an aggregated deal level as well as at an individual trade level.

Q: Will the Anti-Internalization feature (AIQ) be changing?

Yes, with the replatform, the ISE markets will adopt the Phlx implementation of Anti-Internalization protection known as “AIQ”. AIQ protects market makers from trading against their own resting interest. If incoming interest of the same Firm Identifier would otherwise trade with its own same Firm Identifier order/quote, the resting interest associated with the Firm Identifier at the potential trade price will be cancelled. The incoming interest will continue to trade against unrelated interest and is eligible to rest on the book.

AIQ will be applied at the Firm Identifier level on the ISE markets. Similar to Phlx, AIQ will not be applied during an auction process, including the opening or when executing complex order interest.

Q: Will the Primary Market Maker (PMM) Role Change?

The PMM designation will continue to be supported on the ISE Exchanges. The quoting obligations and allocation priority of the PMM will remain unchanged. However, the role of the PMM in relation to initiation of a trading rotation and order book handling will change. After the re-platform, a trading rotation for the opening or re-opening will be automatically initiated by the system. In addition, if an order would have previously been locked to the PMM for handling instructions, the order will now be automatically handled by the system.

Q: Will the Role of a Back-Up Primary Market Maker Change?

Upon re-platform, the system will no longer automatically choose a Back-Up PMM from eligible Competitive Market Makers (“CMM”) when the primary PMM has removed their quote. Since the PMM will no longer be required to handle orders, it is unnecessary for a PMM to be present in the system at all times.

Q: Is the application of market maker curtailments changing?

Market maker Curtailments will continue to be supported on the INET platform. However, when a curtailment is triggered, the affected Business Unit market maker’s quotes will be purged instead of inactivated. A re-entry flag will then be required to be submitted in order for new quotes for the same Business Unit to be accepted in the affected underlying.

ISE, GEMX, and MRX will continue to require Market maker Curtailment parameters to be in place for Cumulative Count, Percentage Count, Delta, and Vega as is required today.

Market maker parameters can be submitted over the SQF protocol; however such settings will not persist from day to day. Market makers should call Market Operations to set up default parameters which will persist day to day.

Q: Will ISE exchanges continue to support the Kill Switch protection?

Yes, Kill Switch will be supported utilizing the new Nasdaq provided four character firm identifier (equivalent to Business Unit). The current offering of Kill Switch at the user level (i.e., connection level) and clearing account level will not be supported on the FIX Bridge during the migration or on FIX INET after the migration is complete.

Note, Kill Switch triggers for orders on FIX or OTTO protocols will purge all orders across all protocols including SQF sweeps orders, Auction orders except PIM orders, and auction responses except PIM responses entered for the same Firm identifier. Ability to enter new orders, SQF sweep orders, Auctions and Auction responses will be blocked until the Firm notifies market ops they want to re-enter the market. SQF Quotes and quote entry will not be affected by an order Kill Switch

Q: Will ISE exchanges continue to support price level order protection?

Price level order protections will continue to be applied on the ISE markets with respect to complex orders. The price level order protection for simple orders will be replaced with Nasdaq's Acceptable Trader Range protection and will be expanded to be applied to both orders and quotes, with the exception of AON orders. Quotes are not afforded this protection on the legacy ISE exchange. Protection levels will be defined by the Exchange and published on the website.

Q: Will complex strategy creations and definitions remain the same?

Members will be able to submit strategy creation requests over OTTO and SQF. The FIX interface will automatically create a strategy when a complex order is submitted similar to today. Complex strategy definitions will conform to the sorting currently used on Phlx:

- Stock leg is always last
- Calls before Puts
- Within Calls:
 - Farthest expiration before closest expiration
 - If same expiration, lower strikes before higher strikes
- Within Puts
 - Farthest expiration before closest expiration
 - If same expiration, higher strikes before lower strikes
- If after sorting, the first leg is sell, all legs' buy/sell is flipped

Q: Will Market Wide Speed Bump continue to be supported?

Yes, Market Wide Speed Bump will continue to be supported on the INET platform. However, similar to how market maker curtailments are triggered, if a Market-Wide Speed Bump is triggered, quotes will be purged instead of inactivated. If quotes are purged due to triggering the Market-Wide Speed Bump, the participant will need to request and be permissioned for re-entry by Market Operations.

Note, during the exchange migration from T7 to INET, Market Wide Speed Bump parameters will be required for each system (Legacy T7 and INET) and will be applied to underlyings on each system independently. A trigger of the Market Wide Speed Bump will only affect quotes on the platform on which the curtailment was triggered, not orders.

Q: Will ISE and GEMX continue to offer Cross Market Speed Bump?

Yes, Cross Market Speed Bump will continue to be supported across ISE and GEMX.

Note, during an exchange migration from T7 to INET, Cross Market Wide Speed Bump parameters will be required for each system (Legacy T7 and INET) and will be applied to underlyings on each system independently. A trigger of the Cross Market Wide Speed Bump will only affect quotes on the platform on which the curtailment was triggered, not orders.

Q: Will ISE continue to support FX products?

Yes, FX Options will continue to be available on ISE, however the official market open for these products will be adjusted from 7:30 a.m. to 9:30 a.m. ET as each symbol migrates from T7 to INET. The closing time for these options will remain unchanged at 4:15 p.m. ET.

Membership & Registration

Q: Do I need to make any changes to my membership or registration with the re-platform?

No changes are necessary for membership or registration unless a participant would like to change their membership or registration status.

Q: Will the process for market maker symbol assignment change?

Yes, after the migration to INET is complete, the ISE markets will no longer permit market makers to register for quoting an underlying option series via the ISE Members Area website. Market makers will be required to contact Market Operations to be assigned in an underlying class. These assignments will be system enforced and quotes submitted outside of a market maker's assigned classes will be rejected. Please note, market makers may leverage OTTO for order entry capabilities in underlying options series for which they are not assigned.

Market Data

Q. Who will be leading the Market Data integration?

Terry Wade, SVP of Global Information Services, is managing the Market Data initiative. Terry will work closely with Dave Gedeon (indexes and calculation), Nayan Acharya (index data) and John Dinh (market data). For questions, please contact dataproducs@nasdaq.com.

Q: Will all ISE Market Data products continue to be offered?

No, upon completion of the replatform, NASDAQ will make the following changes to the ISE Market Data feeds:

- The **Reference Data** feed will be discontinued. Simple and complex instrument directory messages containing similar data attributes available in the Top Quote, Order, Depth of Market and Trade feeds.

Q: What data products are available from the ISE platform?

NASDAQ will continue to offer the existing real time data feeds noted below:

- **Top Quote Feed** – Best Bid and Offer (IBBO) at the top price level of the order book, as well as trades and trading status information.
- **Depth of Market Feed** – bids and offers at the top five price levels of the order book.
- **Order Feed** – provides a snapshot of every order that rests on the book for simple (single legged) instruments
- **Trade Feed** – provides last trade (price and quantity) along with other trade statistics
- **Spread Feed** – comprised of the Depth of Market, Top of Quote, Order, and Trade information for Complex instruments only (*only available on ISE*)

ISE Market Data Feed Technical Specification documents can be found on the ISE Member Area at the links below:

- [ISE Top Quote Feed 1.01](#)
- [ISE Depth of Market Feed 1.01](#)
- [ISE Order Feed 1.01](#)
- [ISE Trade Feed 1.01](#)
- [ISE Top Combo Quote Feed 1.0](#)
- [ISE Depth of Market Combo Quote Feed 1.0](#)
- [ISE Order Combo Quote Feed 1.01](#)
- [ISE Trade Combo Quote Feed 1.0](#)

Put/Call trade data is also available:

- **ISE Open/Close Trade Profile** – extensive offering of underlying put/call data delivered as an end-of-day file or intra-day, every 10 minutes. Historical data is also available
- **ISE Select XML Feed** – ISE Sentiment values for underlying securities that trade at ISE

Q: Will the recovery procedures change for the Market Data feeds?

Yes. ISE, GEMX, and MRX will no longer provide snapshots as a recovery method. Upon re-platforming to INET, missing data can be filled by requesting the missing data with the multicast re-request channel or by connecting to the SoupBin TCP connection. Glimpse will be supported on the Top of Book and Depth of Market Data feeds to obtain the current book state. The Glimpse mechanism allows for intra-day connection by obtaining the current book state and returning a sequence number to be used to join the live multicast stream.

Q: Will Market Data Feed PCAP files be made available?

Yes, Market Data PCAP files can be found here at the link here: [ISE Market Data PCAP Files](#)

Q: What are the Market Data Feed Bandwidth requirements?

See below for anticipated bandwidth requirements for each of the ISE exchanges:

	ISE	GEMX	MRX
Top Quote	~175Mb	~175Mb	~90Mb
Depth of Market	~260Mb	~260Mb	~130Mb
Order Feed	~2Mb	~2Mb	~1Mb
Trade Feed	~0.5Mb	~0.5Mb	~0.5Mb

	ISE	GEMX	MRX
Combo Top Quote	~175Mb	N/A	N/A
Combo Depth of Market	~260Mb	N/A	N/A
Combo Order Feed	~2Mb	N/A	N/A
Combo Trade Feed	~0.5Mb	N/A	N/A

Q: Where can I request production access to GLIMPSE?

Production Access to GLIMPSE can be requested here:

<http://www.nasdaqtrader.com/Trader.aspx?id=DataFeedAppReqForm>

Reporting

Q: Where will ISE clients be able to receive and access ISE Customer Facing Reports post-close?

ISE clients will continue to receive and access ISE reports as they do today through the migration of each exchange. Changes to reports and/or access to those reports will be relayed to clients in advance of any change. The Exchange has made sample reports, noting changes to the report, available to participants on the website.

The Exchange will also introduce a new customer portal for report management. More details to follow.

Q: Will Nasdaq support report delivery via File Transfer Protocol (FTP)?

File Transfer Protocol (FTP) will NOT be supported for report delivery on INET. Nasdaq will introduce a new report portal, Report HQ, which will support the delivery of reports via SSH File Transfer Protocol (SFTP or SCP).

Q: What is Report HQ?

Report HQ is a new report portal that is being introduced on the Nasdaq exchanges. It will first be introduced for Nasdaq Futures, Inc. ("NFX") with the goal of having reports for all of Nasdaq's exchanges accessible and/or delivered via Report HQ. Report HQ will offer the full suite of reports for ISE, GEMX, and MRX once they are migrated to the INET platform.

Q: What reports will no longer be available post re-platform?

The following reports will be discontinued from all ISE markets post migration:

- Daily NBBO Setter Volume Report for GEMX
- Customer Combo Yield Report
- Execution History Report
- Trade History Report
- SIFMA Quality of Execution Report

The following report will no longer be available for GEMX post migration:

- MM Quality of Market Report

Q. What reports are changing post re-platform?

The following report will contain data or formatting changes:

- **MM Marketing Fee Details/Summary Report (PFOF):** Will be replaced by a template similar to the existing Phlx PFOF Details Report
- **EAM Preferencing Report:** Will be replaced by the Phlx Order Flow Provider (OFP) Report
- **MM Preferencing Report:** Will be replaced by the Phlx Liquidity Provider (LP) Report
- **Open Order Report and Open Combo Order Report:** Will be combined into one (1) report using the existing format of the Open Combo Order Report
- **Order History Report and Combo Order History Report:** Will be combined into one (1) report using the existing format of the Combo Order History Report
- **CMM Symbol Selections report:** Will be replaced by a new report named the Market Maker Symbol Selection Report. The new report will contain all of the fields on the existing CMM Symbol Selections report plus additional fields representing curtailment settings. After completion of the re-platform to INET, this report will be introduced on Phlx, NOM, and BX Options.
- **Daily Series File, Product File and Instrument File:** Are expected to follow the format of the existing files found on the Phlx FTP site.

Other

Q: **Key Contacts**

For a list of key contacts regarding the migration effort, please review [Nasdaq ISE Migration Contact List](#).