FREQUENTLY ASKED QUESTIONS

NASDAQ OMX PSX – Trading and Connectivity

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As announced in Equity Trader Alert #2013-23, NASDAQ OMX^{\odot} is redefining its third U.S. equity trading platform, NASDAQ OMX PSX^{SM} (PSX^{SM}), in Q2 2013 with a new execution model, improved technology and competitive pricing.

Why did NASDAQ OMX re-launch with a price/time model?

PSX is introducing the price-time execution model, where the execution logic is model is simple, easily adoptable and well understood by the vast majority of market participants. All displayed limit orders are treated equally and executed in the order in which they were received at the same price. Non-displayed shares are executed after displayed shares in the order in which they were received at that price.

What kind of market participants can trade on this market?

All market participants can take advantage of this new market model.

Is PSX a Reg NMS protected quote?

Yes. PSX is a part of the National Market System (NMS) plan. The best bid and best offer on PSX is protected by the SEC order protection Rule 611 the same way the best price level on other exchanges are protected.

What securities does PSX trade?

PSX trades Reg NMS securities that are listed on NASDAQ, NYSE, NYSE Arca, NYSE Amex and other regional exchanges.

Does the PSX market operate on INET technology?

Yes. PSX runs on proven INET technology. Customers are able to leverage their current connectivity and colocation cabinets in the data center.

Where are the PSX data centers?

PSX is located in both of NASDAQ OMX's existing U.S. data centers (one data center in the New York metro area and one in the mid-Atlantic region).

Can I use existing physical connectivity to the NASDAQ OMX data centers?

Yes. If you currently connect to the NASDAQ OMX data centers, your existing methods of connectivity will reach PSX. As always, firms should check their bandwidth requirements when ordering additional services.

Can I use my existing ports to access PSX?

Yes, PSX members can continue to trade on PSX using their existing connections.

How much are ports per month?

On PSX, connectivity to NY-Metro and Mid-Atlantic data centers is \$400 per port pair/month.

Port charges are based on logical ports. Therefore, if a firm uses multiple MPIDs on a single source session, such as using a service bureau port to access PSX, the firm is charged based on the logical port or Source/MPID combination, which is the same fee method used for other NASDAQ OMX protocols.

What protocols are supported for order entry?

The protocols for sending orders to PSX are OUCH, RASHport, INET FIX and FIX Lite protocols.

Is 10G Ethernet access available for PSX?

Order entry access via OUCH and PSX market data products is available on the 10G Ethernet network in the NASDAQ OMX Data Center.

How can I order 10G order entry access for PSX?

If you already have a 10G hand-off:

 Decide if you plan to upgrade existing ports or request new ports for 10G access to PSX and fax the <u>online port request form</u> to +1 212 231 5426. For any questions, please contact <u>NASDAQ OMX</u> <u>Subscriber Services at +1 212 231 5180</u>, Option 3.

If you do not have a 10G hand-off:

- Your firm will need to have routing equipment and interface cards capable of supporting a 10G connection. Please review your current network infrastructure to be sure you can support 10G access.
- Decide if you plan to upgrade existing ports or request new ports for 10G access to PSX and fax the online port request form to +1 212 231 5426. For any questions, please contact NASDAQ OMX Subscriber Services at +1 212 231 5180, Option 3.
- Request 10G connection(s) to PSX via a Cross Connect/Hand-Off request in the <u>Co-Lo Console</u>. New hand-offs are \$5,000 per month, per hand-off and billing will begin once the connection installation is completed by the data center team.

How can I order 10G access to PSX market data?

To request approval for 10G access to PSX TotalView-ITCH, PSX Last Sale, PSX BBO and/or PSX OUCH Pricing, please complete the Data Feed Request Form using either the <u>online form</u> or the <u>hard copy form</u>, which may be faxed to +1 301 978 5295 or emailed to <u>dataadmin@nasdaqomx.com</u>. For more information about market data feeds, contact NASDAQ OMX Global Data Products at +1 301 978 5307.

Do I have to perform a connectivity test?

Yes, prior to trading on PSX, all firms are required to perform a basic certification test of their 10G connections in order to verify proper functionality.

What order types and functionality does PSX offer?

PSX offers the following order types and functionality:

- Intermarket Sweep
- Post-Only
- Price-to-Comply
- Mid-Point Peg
- Order Modify
- Self Match Prevention
- Routing
- Minimum Quantity

Does The NASDAO Stock Market route to PSX?

Yes. NASDAQ's routing strategies, which access all market centers with protected quotes, also access PSX. NASDAQ also provides directed orders to PSX.

Are there market making capabilities on PSX?

Yes, PSX will introduce Registered Market Maker (RMM) status in all securities.

RMMs are required to maintain a continuous, two-sided quote of at least one round lot during regular market hours for each security in which they are registered.

Does PSX conduct opening, closing or intraday crosses?

No.

Can firms use the same MPID to trade on PSX as they use for NASDAQ and FINRA?

Yes. As long as a firm becomes a member of PSX, NASDAQ or FINRA members who already have an MPID may use the same MPID to trade on PSX. Please note there is no MPID attribution on PSX.

What is the PSX International Standard (ISO 10383) market identification code (MIC)?

The MIC code for the PSX equities exchange is **XPHL**. The MIC code for the PHLX options exchange is **XPHO**. Refer to http://www.iso15022.org/MIC/homepageMIC.htm for a complete list of MICs.

What are the trading hours for PSX?

Trading hours are 8:00 a.m. to 5:00 p.m., Eastern Time (ET). Any orders entered before 8:00 a.m. will be rejected.

Can I use the NASDAO Workstation for PSX?

Firms are able to use the NASDAQ Workstation[®] to run execution and trade scans. Order and quote entry is not supported via the NASDAQ Workstation.

How should broker-dealers notify PSX if they invoke the self-help exception against PSX?

Broker-dealers that invoke the self-help exception against PSX can send an email to PSXSelfHelp@nasdagomx.com and call +1 212 231 5100.

Clearing

What protocols are supported for clearing?

The DROP 2.1 protocol are supported.

How do my trades clear?

PSX trades clear on the RIO contract sheet. The counter party is an omnibus account. The clearing number for the account is **0237** and the contra party is "**NQPX**," a generic, anonymous MPID.

What is the value on the RIO contract MRO (intra-day transmission file) for the field or column name ORIGINATING MARKET/TRADE SOURCE?

The trade source value is "XPHI" for PSX in this field on the RIO contract MRO.

What is the value on the Consolidated Trade Summary MRO for the field or column name MARKET NAME? The value is "PH" for the PSX equities venue.

What is the Blue Sheet exchange code for PSX?

The PSX exchange code for the current Blue Sheet spec hosted by FINRA is "D." Refer to the FINRA Notice to Members regarding the validation of electronic Blue Sheet submissions.

Do I need to report to the Order Audit Trail System (OATS)?

PHLX members that are FINRA members need to follow <u>FINRA Rule Series 6950</u>. PHLX members that are not FINRA members need to follow the same rules that NASDAQ-only members follow today (see <u>Membership FAQs</u> and <u>NASDAQ Rule Series 6950</u>). The same guidelines for OATS reporting should be followed when trading NASDAQ-listed securities on PSX as when trading NASDAQ-listed securities on NASDAQ.

What is the exchange destination code that should be used when routing an order to NASDAQ OMX PSX? For OATS, please use exchange destination code "XX" when routing an order to PSX.

For more information on OATS, see the <u>NASDAQ Exchange Operational FAQs</u> or the <u>OATS Technical Specifications</u>.

My firm will be a clearing house for PSX members, what do I need to do?

Your firm will need to complete the Depository Trust & Clearing Corporation (DTCC) *RIO Add Participant Form.* To obtain this form, please email OPS@nasdaqomx.com. Once completed, return this form to NASDAQ OMX via email or fax it to +1 212 231 5426. NASDAQ OMX will process this form along with the required exchange letter

to DTCC. You will be notified by NASDAQ OMX when the paperwork is in place at DTCC. Feel free to contact Vincent DiVito at +1 212 401 8711 with any questions regarding PSX clearing.

Market Data

Is PSX a part of the Consolidated Tape Plans?

Yes. PSX is represented with an "X" identifier on the following consolidated quote and last sale data feeds:

- UTP Quotation Data Feed (UQDF)
- UTP Trade Data Feed (UTDF)
- Consolidated Quotation System (CQS)
- Consolidated Tape System (CTS)

What proprietary data feeds support PSX?

NASDAQ OMX introduced the following proprietary data feeds to support PSX:

PSX TotalView-ITCH – Provides full order depth and last sale information.

PSX Historical TotalView ITCH — Offers a historical record of the order and trade transaction data from the PSX TotalView-ITCH data feed. Subscribers to this historical product may download daily transaction logs on a T+1 basis from a secured website or FTP server.

PSX Basic - Provides key data elements for all exchange-listed equities traded on the PSX execution system.

- PSX Last Sale (PLS) Tick-by-tick price and size information for orders executed within the PSX execution system.
- PSX Best Bid and Offer (PSX BBO) The highest bid price and lowest offer price, with associated size, available within the PSX execution system.
- Market Status Information Includes Trading Halts and Emergency Market Condition (EMC) event messages.

Contact NASDAQ OMX Global Data Products at +1 301 978 5307 for more information.