

# LOW LATENCY CONNECTIVITY

NASDAQ OMX CoLo offers subscribers the potential for significant reductions in latencies with our innovative 40G and 10G connectivity choices. These connections offer a decrease in round-trip latency and increased bandwidth compared to the 1G network.

### **AVAILABILITY**

10G, 10G Ultra and 40G Ethernet access is available for all NASDAQ OMX® order entry protocols and data feeds, including the new FPGA ITCH. NASDAQ OMX also offers the following U.S. exchange data feeds on our low latency networks:

#### AVAILABLE OUTSIDE EXCHANGE FEEDS

- + Arca Trades
- + ArcaBook Multicast
- + Arca BBO
- + BATS, BATS Y
- + Consolidated Tape System (CTS)
- + Consolidated Quotation System (CQS)
- + CME (includes CME, CBOT, COMEX and NYMEX)
- + EDGA, EDGX
- + NYSE OpenBook, NYSE Alerts, Trades
- + NYSE MKT OpenBook Ultra, Trades, Alerts
- + Options Price Reporting Authority (OPRA)
- + Toronto Stock Exchange (TSX)

### **MORE INFORMATION**

## CONNECTIVITY TESTING

Our networking team will work with you to enable your ports for the requested data. All firms are required to perform a basic certification test in order to verify proper functionality.

### ORDERING HAND-OFFS TO NASDAQ OMX

Please place your request via a Cross Connect/Hand-off order in the CoLo Console. Billing begins once the installation is completed by the data center team.

CONNECTIVITY TYPE	NRC	MRC	LATENCY IMPROVEMENT*
1G ULTRA	\$1,500	\$2,500	5-12 µs vs. 1G
10G	\$1,000	\$10,000	8-15 µs vs. 1G
10G ULTRA	\$1,500	\$15,000	5-9 µs vs. 10G
40G	\$1,500	\$20,000	3-8 µs vs. 10G

\*Median roundtrip latency measured from order to acknowledgement for the NASDAQ Stock Market™ using Corvil Net

You can request new ports for 10G or 40G access by completing the online port request form and faxing it to + 1 212 231 5426. For any port questions please contact NASDAQ OMX Subscriber Services at + 1 212 231 5180, Option 3.

### **ORDERING MARKET DATA**

To request approval for access to any of the NASDAQ OMX data feeds, please complete the online DATA FEED REQUEST FORM or the HARD COPY FORM, which may be faxed to + 1 301 978 5295 or emailed to DATAADMIN@NASDAQOMX.COM. For more information, contact NASDAQ OMX Global Data Products at + 1 301 978 5307.

To request approval for access to any of the other U.S. exchange feeds, please submit a Market Data request in the COLO CONSOLE. Many of these feeds are received over our ultra-low latency WIRELESS CONNECTIVITY SERVICE.

EMAIL - DOLIGE AS ADAGONESGNASDAOOMY COM	1	DHONE. 1 212 231 51

PMC Exhibit 2178

Find authenticated court documents without watermarks at docketalarm.com.