

eSpeed Connectivity

Nasdaq offers several connectivity options to access Nasdaq eSpeed to meet different client needs:

- 1.** Co-location **2.** Direct Connect **3.** Points of Presence (PoP) **4.** Microwave **5.** Millimeter Wave

1. CO-LOCATION

Nasdaq Co-location enables clients to place their equipment within the Nasdaq Data Center to access the eSpeed market at the lowest latency profile available.

OFFERING	DESCRIPTION	FEES ¹
CoLo Cabinet	We offer a range of cabinets from low density to high density cabinets.	MRC: ranging from \$2,000 for a Low Density cabinet (<=2.88kW) to \$4,500 for High Density Cabinet (7kw<=10kW)
CoLo eSpeed Access	Includes 10G hand-off plus two FIX session (ports), two Session Manager connections (API Access), or one of each session type.	MRC: \$7,500 Install: \$1,500
Additional eSpeed Sessions (Ports)	Additional sessions requested beyond the two included under eSpeed CoLo Access Fee (FIX or Session Manager connections)	MRC: \$500 Install: \$0
External Connectivity to your CoLo Cabinet	Choose any of the approved telco providers to install a direct circuit or utilize our Express Connect service.	Telco circuit MRC: Varies by vendor and end point Cross Connect MRC: \$350 Cross Connect Install: \$500
Connectivity to Other CoLo Clients Within Data Center	Cross connect to any co-located clients (no MRC to cross connect between your own co-located cabinets)	MRC: \$350 Install: \$500

2. DIRECT CONNECT

Direct Connect enables clients to connect to the Nasdaq Data Center via a separate agreement with a telco vendor for the circuit. This option adds additional geographic latencies of 300+ microseconds as introduced by your telco provider.

Offering	Description	Fees ¹
Remote Connect eSpeed Access Fee	Includes 1G Ultra switch port plus two FIX session ports, two Session Manager connections (API access), or one of each session type.	MRC: \$2,500
Additional eSpeed Sessions (Ports)	Additional sessions requested above the two already included eSpeed CoLo Access Fee (FIX or Session Manager connections).	MRC: \$500 Install: \$0
External Connectivity To Carteret	Choose from any of the approved telco providers to install a direct circuit or utilize our Express Connect service to connect to our Carteret data center.	Telco circuit MRC: Varies by vendor and end point

3. POINTS OF PRESENCE (PoP)

The PoP service enables clients to connect to the eSpeed market from specific financial data centers.

Offering	Location	Install	Monthly*
PoP	NY4: Secaucus, NJ	\$1,500	\$1,500
	CH4: Chicago, Illinois	\$1,500	\$1,500
	LD4: London/Slough, England	\$1,500	\$1,500

Offering	Description	Fees ¹
Remote Connect eSpeed Access Fee	Includes 1G Ultra switch port plus two FIX session ports, or two Session Manager connections (API access), or one of each session type.	MRC: \$2,500
Additional eSpeed Sessions (Ports)	Additional sessions requested above the two already included eSpeed CoLo Access Fee (FIX or Session Manager connections).	MRC: \$500 Install: \$0

* Fees will vary depending on the service and bandwidth selected, additional fees will apply for the requested market data (applicable license, distribution and access fees) and order entry (applicable market ports/sessions and access fees)

4. NASDAQ CHICAGO MICROWAVE WIRELESS CONNECTIVITY (Data Only)

Nasdaq Chicago Microwave offering enables clients to receive market data from the Nasdaq Data Center in Carteret, NJ and the CME Group Data Center in Aurora, IL up to 36% faster than the lowest latency fiber connections. (4.13 milliseconds one way)

Service*	Wireless Carrier	Monthly	Install
Nasdaq eSpeed Direct (2YR, 3YR, 5YR, 7YR, 10YR, 30YR)	TMX/Atrium	\$10,000	\$5,000

* Additional services available for other market data asset classes

5. METRO MILLIMETER WAVE (Data Only)

The Metro Millimeter Wave (MMW) offering enables clients in the Nasdaq Data center to receive market data from other major New Jersey metro trading hubs at 40%-50% faster speeds than any fiber based network.

Remote Multicast eSpeed ITCH Wave Ports	Wireless Carrier	Installation Fee	MRC	Expected Latency*
Multicast Nasdaq eSpeed ITCH Wave Port at Secaucus, NJ (NY4)	Apsara Networks	\$2,500	\$5,000	90 µsec
Multicast Nasdaq eSpeed ITCH Wave Port at Secaucus, NJ (NY2)	Apsara Networks	\$2,500	\$5,000	96 µsec

*One way latencies

Prices shown do not include any fees for market data receipt or redistribution covered under Market Data Agreement.

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