



August 23, 2024

Ms. Vanessa Countryman
Secretary
U.S. Securities and Exchange Commission
100 F Street NE
Washington DC 20549-1090

Re: Notice of Filing and Immediate Effectiveness of Proposed Rule Change to Expand its Co-Location Services (SR-BX-2024-024; SR-Phlx-2024-32; SR-ISE-2024-28; SR-MRX-2024-23; SR-GEMX-2024-21)

Dear Ms. Countryman:

McKay Brothers LLC (“**McKay**”) and its affiliate Quincy Data LLC (“**Quincy**”) (collectively, the “**Firm**”)¹ appreciate the opportunity to provide comment on the above referenced rule changes (the “**Rule Changes**”)² by Nasdaq BX, Inc. and its affiliate exchanges (the “**Exchanges**”) relating to the planned expansion to the NY11-4 data center space by the Exchanges and their affiliate, The Nasdaq Stock Market LLC (“**Nasdaq**”).³

We believe that Nasdaq needs to equalize all connections within its existing datacenter (NY11) before expanding to the NY11-4 colocation space in order to address significant concerns under the Securities Exchange Act of 1934 (“**Exchange Act**”). Such concerns include an exacerbation of existing unfair discrimination and inappropriate burdens on competition due to unequal connections at NY11.⁴ Nasdaq has indicated in a comment letter that it intends to equalize

¹ Quincy is a market data distributor that provides equal access to low latency US equities market data that helps subscribers make tighter markets. McKay is a telecommunications service provider, affiliated with Quincy and using various technologies – often wireless – to offer low-latency data transport services, which likewise allow subscribers to manage risk more effectively and make tighter markets. We offer services on a level-playing field basis—meaning we make our best latencies available to all subscribers. We also provide small firm discounts to support greater diversity of market participants with access to low latency market data.

² See, e.g., Securities Exchange Act Release No. [100558](#), 89 FR 59949 (July 24, 2024) (SR-BX-2024-024).

³ Nasdaq controls the NY11 data center shared by the Exchanges; accordingly, the discussion in this comment letter generally refers to Nasdaq to describe the Firm’s concerns relating to the planned expansion to NY11-4 by Nasdaq and the Exchanges. The Firm submitted a substantially identical comment letter on July 24, 2024, to File No. SR-NASDAQ-2024-026 proposing a similar rule change, which, based on a review of pending rule filings available on Nasdaq’s website, appears to have been withdrawn. The Firm has previously raised concerns relating to Nasdaq’s planned introduction of NY11-4 in two previous comment letters. See Letters from Jim Considine, CFO, McKay Brothers LLC re: SR-NASDAQ-2024-007, <https://www.sec.gov/comments/sr-nasdaq-2024-013/srnasdaq2024013-449139-1150422.pdf> and re: SR-NASDAQ-2024-022 <https://www.sec.gov/comments/sr-nasdaq-2024-022/srnasdaq2024022-483611-1383074.pdf>. Several other commenters have expressed concerns regarding the NY11-4 expansion. See comment file to SR-NASDAQ-2024-007, <https://www.sec.gov/comments/sr-nasdaq-2024-013/srnasdaq2024013.htm> and SR-NASDAQ-2024-022, <https://www.sec.gov/comments/sr-nasdaq-2024-022/srnasdaq2024022.htm>. Nasdaq also submitted a reply letter on May 9, 2024 related to NY11-4. Letter from Katie Hopkins, Associate General Counsel, Nasdaq re: SR-NASDAQ-2024-013 <https://www.sec.gov/comments/sr-nasdaq-2024-013/srnasdaq2024013-470932-1286655.pdf> (the “**Nasdaq Letter**”).

⁴ 15 U.S.C. 78f(b)(5) and (8).

all connections within NY11 eventually and sometime *after* it operationalizes NY11-4.⁵ However, the order in which Nasdaq takes these actions is critically important.

As explained below, expanding to NY11-4 before equalizing all connections in NY11 will impose a minimum cost of **\$2.5 million**⁶ on many colocation customers to identify advantaged versus disadvantaged colocation positions within Nasdaq's campus.⁷ In contrast, equalizing all connections in NY11 before expanding to NY11-4 would not require any existing or potential colocation customer to expend resources or pay additional fees, as all positions on the Nasdaq campus (NY11 and NY11-4) would offer equal performance.

Nasdaq has said that it is designing NY11-4 with equal connections to avoid recreating the longstanding problems of unequal connections that currently exist in NY11.⁸ By not equalizing NY11 first, however, Nasdaq exacerbates these issues while earning additional colocation and connectivity revenue as a result. We urge Nasdaq to adopt and publish a policy of equalized and non-discriminatory connectivity in *all* its data center spaces and follow up with proper transparency regarding its implementation.

If Nasdaq does not equalize NY11 before expanding to NY11-4, the Exchanges must justify the unfair discrimination and burdens on competition imposed (and exacerbated) by its approach. As the Exchanges have not offered any such justification to meet their burden to justify the Rule Changes' consistency with the Exchange Act, the Rule Changes must be suspended.

I. Background

Nasdaq is currently unique among exchanges that offer proximity colocation services in that several connections important to a colocation customer are unequal. In the diagram below, all "A" and "B" connections are unequal in length and/or latency within NY11 (*i.e.*, they vary between different customers). A careful reading of Nasdaq's representations in its rule filings indicates only the "C" connections (those between customer cabinets and the matching engine) are equal.⁹ However, A and B connections are just as important as C connections—information ultimately must enter and exit the building to engage other NMS venues, so extra length on any A or B connection disadvantages the affected colocation customer.

Nasdaq colocation customers order connections to their telecommunications providers through Nasdaq's customer portal. Nasdaq then directs Equinix, the datacenter lessor, to install the

⁵ Letter from Katie Hopkins, Associate General Counsel, Nasdaq re: SR-NASDAQ-2024-013 at 2-3 <https://www.sec.gov/comments/sr-nasdaq-2024-013/srnasdaq2024013-470932-1286655.pdf> (the "Nasdaq Letter").

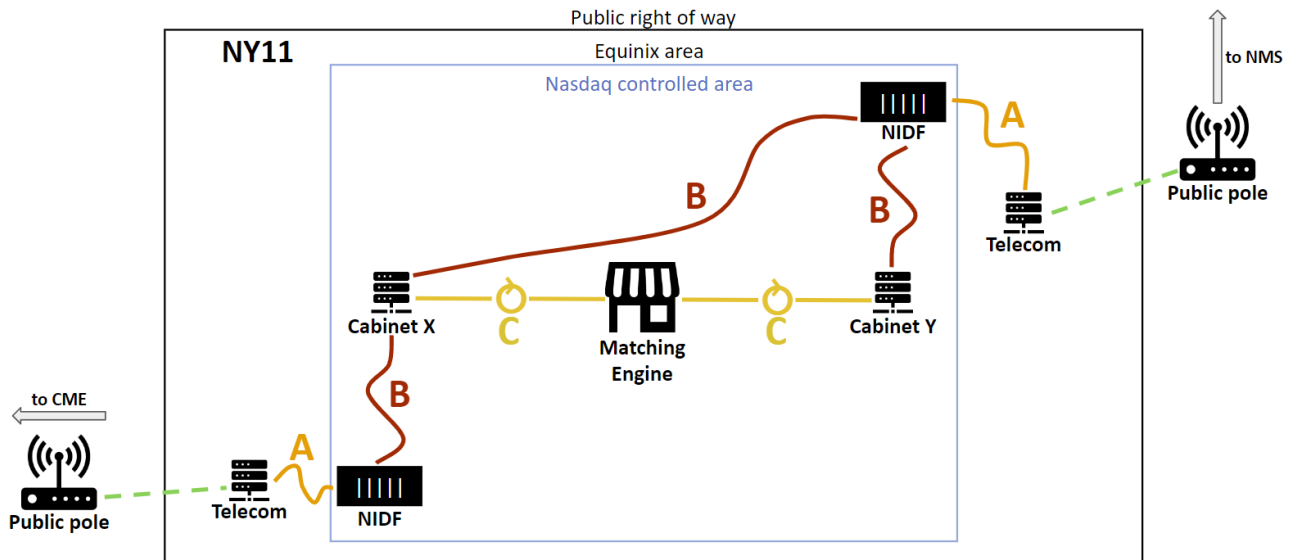
⁶ See *infra* n.19 for a description of this calculation.

⁷ We note that this \$2.5 million estimate excludes significant indirect costs that, although not accruing to Nasdaq, raise barriers to entry for competitive market making. *E.g.*, server, switches, FPGAs, precision timestamp and capture equipment, third party connectivity and other data services, other Nasdaq-affiliated exchanges' market data, *etc.*

⁸ See Nasdaq Letter, *supra* n.5 at 3 ("[Nasdaq] intends to avoid recreating this same problem [of unequal connections in NY11] in the expanded data hall by establishing equalized telecommunication connections at the outset [for NY11-4].").

⁹ See *e.g.*, Exchange Act Release No. [100445](#), 89 FR 55285, n.3 (July 3, 2024) (SR-NASDAQ-2024-030) ("Client connections to the matching engine will be equal across the board, within and among the current data center and the expansion.").

“A” connections (telecommunications provider to an “NIDF”)¹⁰ and the “B” connections, (an NIDF to the customers’ cabinet).¹¹



Maintaining unequal A and B connections in NY11 has two important effects: (1) it gives some colocation customers an advantaged position over others; and (2) it compels many colocation customers to establish multiple points of presence within NY11 to optimize their connectivity. For example, Cabinet X is close to the lower left NIDF (near the key arrival point of CME futures data) but far from the upper right NIDF (near the arrival point of NMS data). If a signal originates from a remote NMS venue, a customer in Cabinet Y can respond faster than one solely in Cabinet X due to the unequal lengths of their (Nasdaq controlled) A and B connections. The Cabinet X customer has an advantage in the receipt of CME futures data (and sending orders/data out toward CME), while the Cabinet Y customer has an advantage in the receipt of NMS market data (and sending orders/data out to other NMS venues). Given this reality, colocation customers that require the most timely access to **both** CME and other NMS venues to compete aggressively in market making are compelled to replicate a presence on both sides of NY11.

The introduction of NY11-4 *before* equalizing NY11 will compel many customers to establish a third point of presence —at a cost *in incremental fees paid to Nasdaq alone* of at least \$2.5 million on a three-year commitment—to eliminate the risk that the NY11-4 connection is a

¹⁰ The “NIDF” (or Nasdaq Intermediate Distribution Frame) is a Nasdaq construct: a simple passive patch panel that Nasdaq requires telecom connections to traverse to service customers.

¹¹ We note that this diagram provides a simplified view of the Nasdaq and the Exchanges’ infrastructure. The key point is that the length and latency of all connections between and among colocation customers’ cabinets and telecom providers should be fully disclosed and equalized to within industry standards (1 nanosecond or 1 foot)—including with respect to any NIDFs, meet-me-rooms, or other internal infrastructure—such that no market participant has an advantage or disadvantage relative to any other colocation customer within the Nasdaq data center facilities (including with respect to customers of the Nasdaq wireless connectivity services via the roof (the “Nasdaq Wireless Services”) and other Nasdaq vendor services). To achieve this requirement, full disclosure of the equalized length and latency of each connection is necessary.

superior connection to one (or both) of their existing NY11 points of presence.¹² The customer must pay these fees just to determine, without any transparency from Nasdaq or the Exchanges, whether the investment will offer a performance benefit. If, instead, Nasdaq equalizes all connections in NY11 before introducing NY11-4, all colocation customers in both spaces will be assured that no cabinet position has a telecommunications connectivity advantage over any other cabinet. Customers could then maintain a single point of presence at the Exchanges rather than having to duplicate or triplicate their points of presence at double or triple the cost. This approach would not only remedy the longstanding and ongoing Exchange Act issues with Nasdaq's current setup, but it would also avoid exacerbation of these inconsistencies if Nasdaq expands into NY11-4 without first equalizing all connections within NY11.

Most of the colocation customers connecting to McKay for services at New York Stock Exchange LLC's ("NYSE") Mahwah data center maintain a single point of presence because NYSE has equalized all connections it controls at its data center.¹³ Similar to what Nasdaq is attempting to do with NY11-4, NYSE successfully introduced a new colocation hall (Hall 5), which became operational on July 1, 2024.¹⁴ Because connections at NYSE's data center were already equalized (including and accounting for Hall 5), there was no uncertainty as to whether establishing a new presence in NYSE Hall 5 would provide an advantage or disadvantage relative to a customer's current position. Each new cabinet is as performant as every previously existing cabinet.

Nasdaq is fully capable of equalizing A and B connections, as it is doing so in NY11-4, and has already stated its intention to eventually do so within NY11. As a result, there is no operational or technical impediment to Nasdaq equalizing NY11 prior to expanding to NY11-4. The primary impediment to Nasdaq doing so appears to be Nasdaq's substantial economic interest in expanding to NY11-4 before equalizing.¹⁵ We are concerned that Nasdaq may be prioritizing its colocation and connectivity profit over the Exchange Act obligations of transparency, the provision of non-discriminatory market access, and not imposing unnecessary or inappropriate burdens on competition.

¹² Some of these costs could be reduced once a customer is able to determine whether it is better off in NY11 vs. NY11-4 for a particular trading strategy, and then proceeds to eliminate one of these points of presence. However, the reduction could occur only after the customer has incurred costs to establish a presence in NY11-4 *and* after the term of any existing NY11 commitment has expired. In all cases, a customer will have to replicate a point of presence in NY11-4 for some period of time to determine if it is more advantageous. Furthermore, until Nasdaq implements full campus equalization, no customer can be certain that further incremental changes in datacenter connectivity will not alter which point of presence has disadvantages, which may compel the customer to continue to maintain the broader footprint.

¹³ We note further that this markets-favorable structure is also present at the CME Group's data center, another well-equalized exchange-controlled colocation space, which is leased to CME by a third-party data center operator.

¹⁴ See generally, Exchange Act Release No. [98148](#), 88 FR 57150 (Aug. 22, 2023) (SR-NYSE-2023-29) ("ICE is already developing a new colocation hall (i.e., Hall 5). . .").

¹⁵ The equalization of NY11 is technically feasible. We believe it is possible to do so before the planned opening of NY11-4 in October, but acknowledge that equalizing NY11 before expanding to NY11-4 could potentially result in a brief delay in introducing NY11-4 depending on how quickly Nasdaq takes action to equalize NY11.

II. Expanding to NY11-4 before Equalizing NY11 Is Contrary to Exchange Act Requirements

We believe that the introduction of NY11-4 before equalizing access in NY11 raises serious concerns under the Exchange Act. We fully support Nasdaq's proposed equalization of connections in NY11-4, but it is critically important that NY11 also have all its connections transparently equalized before the NY11-4 expansion to mitigate the Exchange Act concerns described below.

A. Nasdaq's Plan Imposes Inappropriate Burdens on Competition

First, the Exchanges' proposed introduction of NY11-4 imposes unnecessary and inappropriate burdens on competition in contravention of Section 6(b)(8) of the Exchange Act because many colocation customers will be compelled to replicate their presence in both NY11 and NY11-4 to determine which colocation position may provide them better access to externally-sourced data and other NMS markets.¹⁶ This situation inappropriately burdens competition by raising barriers to entry for firms seeking to compete against established colocation customers, who will likely need to establish *three* points of presence at the Exchanges to compete with other latency-sensitive firms. The Nasdaq plan also inappropriately burdens the Exchanges' members by unnecessarily drawing resources that such members could otherwise use for other aspects of competing—much to the benefit of Nasdaq which accrues additional colocation and connectivity revenue as a result.

We recognize that Nasdaq and the Exchanges do not require any member or colocation customer to acquire space in NY11-4; each customer is free to make its own decision. However, Nasdaq is creating a dynamic in which NY11-4 may provide a more advantageous connection to the matching engine (inclusive of A, B and C connections) than a customer's existing space in NY11. To the extent that a more favorable connection in NY11-4 is possible, which it will be for at least some colocation customers,¹⁷ latency-sensitive market makers are very likely to find it necessary to establish a point of presence in NY11-4 to avoid a degradation in their competitiveness. This incentive structure is a competitive burden that Nasdaq and the Exchanges introduce by expanding to NY11-4 before equalizing NY11.

B. Nasdaq's Plan Unfairly Discriminates between Different Colocation Customers

The Exchanges' approach also results in unfair discrimination between and among customers in NY11 and those establishing a presence in NY11-4 in contravention of Section 6(b)(5) of the Exchange Act. Because connections in NY11 are presently unequal, some colocation customers in NY11 currently have more advantageous positions than others.¹⁸ And customers

¹⁶ 15 U.S.C. 78f(b)(8).

¹⁷ "Nasdaq is designing the new data hall to provide latencies that are no worse or no better than those achievable in the existing data halls." See Nasdaq Letter, *supra* n.5, at 3. This statement necessarily means that some NY11-4 connections will be better than some NY11 connections and some will be worse. In absolute and general terms, it is likely that colocation spaces in NY11-4 will be no better than the best geographical points of presence in NY11. It is also likely that colocation spaces in NY11-4 will be no worse than the worst geographical points in NY11. But, from the perspective of individual customers, some customers in NY11 will have improved connectivity to remote NMS venues by colocating in NY11-4.

¹⁸ In this regard, NY11 *currently* unfairly discriminates between colocation customers because connections are unequal. For example, as between any two customers in NY11, one may have more advantageous access to other NMS venues

seeking the most advantageous positions in NY11 frequently establish multiple points of presence within NY11 already.

Introducing NY11-4 before equalizing NY11 will exacerbate this issue by compelling latency-sensitive customers to establish a second or third point of presence (the new one in NY11-4) and thereby perpetuate differing access conditions among what should be equitably-treated colocation customers. Some customers that choose to add a colocation point-of-presence in NY11-4 will find they have a more advantageous position in NY11-4 relative to their current position in NY11. Others will find—only after they agree to a three-year cage reservation at a minimum cost of \$2.5 million in fees to Nasdaq—that they would have been better off all along having not established a new point of presence in NY11-4 because their existing NY11 position(s) is (are) more favorable.

Customers should not have to expend millions of dollars just to find out whether they may be better off colocating in NY11-4. And, unfair discrimination abounds insofar as some in NY11-4 will have more advantageous connectivity to the Exchanges than some in NY11, and some in NY11 will continue to have a more advantageous colocation space than those choosing to establish a presence in NY11-4.¹⁹

In addition, the Exchanges have not described in the Rule Changes the relationship of NY11 and NY11-4 customers relative to customers using the Nasdaq Wireless Services. We believe all NY11 and NY11-4 customers are currently disadvantaged relative to subscribers of the Nasdaq Wireless Services.²⁰ Further, it would seem that, given the geographic location of the Nasdaq Wireless Services' rooftop connection, Nasdaq Wireless Services customers in NY11-4 will have disadvantageous connectivity versus such customers in NY11. This issue too has not been addressed by Nasdaq or the Exchanges, and requires equalization and transparency around it.

C. Nasdaq's Plan Results in the Inequitable Allocation of Fees, Dues and Other Charges

While some fees associated with NY11-4 (*e.g.*, the installation fee) remain unknown, Nasdaq proposes to charge the same ongoing monthly cabinet fee for a cabinet in NY11-4 as is currently charged for the same in NY11. As a result, Nasdaq proposes to charge many of the same

than another while paying the same fees. Consequently, it cannot be presumed that the status quo of NY11 currently operates consistent with the Exchange Act.

¹⁹ Nasdaq's NY11-4 technical documentation (v.9 at p.11) indicates that private cages, which are generally necessary for market makers to operate competitively, require a three year commitment. A typical market maker requires at least 10 cabinets (and each reserved cage supports no fewer than 10 cabinets). Assuming a customer uses "High Density Cabinet" of 10kW each, there is an installation of fee of \$3,693 per cabinet (total of \$36,930) plus a monthly fee of \$4,478 x 10 cabinets x 36 months = \$1,649,010. A typical exchange trading setup today at Nasdaq will require two telecommunication connections (*i.e.*, "Inter-Cabinet Teleco connection outside Nasdaq space") of \$1,055 x two connections x 12 months = \$25,320. A typical set-up also requires connections to both access switches in NY11-4 (assuming a 40Gb connection for market data from all of the Nasdaq-affiliated exchanges and a 10Gb Ultra connection for orders). Both the 10Gb Ultra and 40Gb connections to Nasdaq have an installation fee of \$1,583 and monthly recurring fees of \$15,825 and \$21,100 respectively. A customer establishing two 10Gb Ultra connections would have installation fees of \$3,166, plus 12 months x 2 connection at \$15,825 = \$382,966, and one opting for the 40Gb connection at 12 months x 2 connections at \$21,100 = \$509,566 (note: the Nasdaq Customer Portal's terms and conditions require a 12 month term for the aforementioned connections and telecom connections). When added together these underlined totals equal \$2,566,862.

²⁰ Nasdaq has not yet, as far as we are aware, made any representations to the contrary.

fees to all colocation customers in NY11 and NY11-4, even though some will receive degraded value due to inferior connectivity.

This issue already exists today in NY11 given that connections are unequal in NY11: fees for geographically-advantaged colocation space is the same price as geographically disadvantaged colocation space. While we acknowledge that such cabinet (and other) fees are already effective, we do not believe such fees are equitably allocated among the Exchanges' colocation customers, in contravention of Section 6(b)(4) of the Exchange Act. Assessing these existing fees to NY11-4 customers will exacerbate the existing Section 6(b)(4) problem.

D. Promoting a Free and Open Market and the Protection of Investors and the Public Interest

Although Nasdaq is part of a publicly traded company with justifiable profit incentives like all other companies, Nasdaq and the Exchanges also have a statutory obligation (among other obligations) to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market, and, in general, to protect investors and the public interest. We believe Nasdaq's proposed approach of expanding to NY11-4 before equalizing NY11 runs counter to these goals as it puts Nasdaq's significant revenue incentive ahead of its statutory obligations.

Rather, Nasdaq's approach seems more reflective of rent-seeking. We are not aware of, nor have Nasdaq or the Exchanges offered, any compelling reason why NY11 could not be equalized before expanding to NY11-4. Publicly, Nasdaq initiated the process to expand into NY11-4 in 2021.²¹ Nasdaq could have been taking steps toward equalization of NY11 over the past three years, in observation of NYSE's equalization of its data center and the January 2022 decision by the D.C. Circuit regarding NYSE's wireless services as a facility of the exchange,²² and in furtherance of compliance with Rule 603(b) of Regulation NMS,²³ but has instead chosen to ignore NY11 equalization until after market participants are effectively forced to pay for space in NY11-4.

These Exchange Act concerns are even more apparent when one considers how easily they could be avoided if Nasdaq simply—like other exchanges such as NYSE have done—accelerates its plan to equalize NY11 before expanding to NY11-4. If Nasdaq were—as we propose—to equalize before expanding, effectively all of the aforementioned Exchange Act concerns would disappear as any colocation customer could be assured that its connections with Nasdaq's facilities have no advantage or disadvantage relative to any other colocation customer, lowering barriers for new entrants in turn.

* * *

For the reasons detailed above, we believe Nasdaq needs to accelerate its plans to equalize all connections under its control within NY11, remedying existing Exchange Act concerns, before proceeding with its planned expansion to NY11-4, which would otherwise exacerbate the concerns.

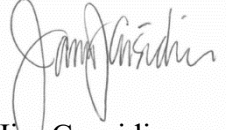
²¹ See Dan Swinhoe, [Nasdaq signs extension with Equinix to stay in New Jersey datacenter](#), Datacenter Dynamics (Dec. 16, 2021), ("Nasdaq, Inc. has signed a deal with Equinix to expand its presence at the colo firm's New Jersey facility."); Dan Swinhoe, [Nasdaq breaks ground on data center expansion at Equinix facility in New Jersey](#), Datacenter Dynamics (May 6, 2022).

²² See [Intercontinental Exchange, Inc. et al v. SEC](#), No. 20-1470 (D.C. Cir. 2022).

²³ 17 CFR 242.603(b).

Thank you again for the opportunity to comment on these developments. Please contact us with any questions at (312) 948-9188.

Sincerely,



Jim Considine
Chief Financial Officer
McKay Brothers, LLC

cc: The Hon. Gary Gensler, Chair
The Hon. Hester M. Peirce, Commissioner
The Hon. Caroline A. Crenshaw, Commissioner
The Hon. Mark T. Uyeda, Commissioner
The Hon. Jamie Lizárraga, Commissioner

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