# EXHIBIT 5A

Additions <u>underscored</u> Deletions [bracketed]

# FEE SCHEDULE OF NYSE CHICAGO, INC.

# Updated through [July 25] <u>August 24</u>, 2022

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#### **[Co-Location Fees**

#### Definitions

The following definitions are for purposes of Co-Location Fees only:

An "Affiliate" of a User is any other User or Hosted Customer that is under 50% or greater common ownership or control of the first User.

"Aggregate Cabinet Footprint" of a User or Hosted Customer is (a) for a User, the total kW of the User's cabinets, including both partial and dedicated cabinets, and (b), for a Hosted Customer, the total kW of the portion of the Hosting User's cabinet, whether partial or dedicated, allocated to such Hosted Customer.

A "Hosted Customer" means a customer of a Hosting User that is hosted in a Hosting User's colocation space.

A "Hosting User" means a User of co-location services that hosts a Hosted Customer in the User's co-location space.

A "User" means any market participant that requests to receive co-location services directly from the Exchange.

#### General Notes

1. A User that incurs co-location fees for a particular co-location service pursuant to this Price List shall not be subject to co-location fees for the same co-location service charged by the Exchange's affiliates NYSE American LLC (NYSE American), NYSE Arca, Inc. (NYSE Arca), NYSE Chicago, Inc. (NYSE Chicago), and NYSE National, Inc. (NYSE National).

2. To qualify for a Partial Cabinet Solution bundle, a User must meet the following conditions: (1) it must purchase only one Partial Cabinet Solution bundle; (2) the User and its Affiliates must not currently have a Partial Cabinet Solution bundle; and (3) after the purchase of the Partial Cabinet Solution bundle, the User, together with its Affiliates, will have an Aggregate Cabinet Footprint of no more than 2 kW.

- A User requesting a Partial Cabinet Solution bundle will be required to certify to the Exchange (a) whether any other Users or Hosted Customers are Affiliates of the certificating User, and (b) that after the purchase of the Partial Cabinet Solution bundle, the User, together with its Affiliates, would have an Aggregate Cabinet Footprint of no more than 2 kW. The certificating User will be required to inform the Exchange immediately of any event that causes another User or Hosted Customer to become an Affiliate. The Exchange shall review available information regarding the entities and may request additional information to verify the Affiliate status of a User or Hosted Customer. The Exchange shall approve a request for a Partial Cabinet Solution bundle unless it determines that the certification is not accurate.
- If a User that has purchased a Partial Cabinet Solution bundle becomes\_affiliated with one or more other Users or Hosted Customers and thereby no longer meets the conditions for access to the Partial Cabinet Solution bundle, or if the User otherwise ceases to meet the conditions for access to the Partial Cabinet Solution bundle, the Exchange will no longer offer it to such User and the User will be charged for each of the services individually, at the price for each such service set out in the Price List. Such price change would be effective as of the date that the User ceased to meet the conditions.

In addition, a User that changes its Partial Cabinet Solution bundle from one option to another will not be subject to a second initial charge, but will be required to pay the difference, if any, between the bundles' initial charges.

3. The initial and monthly charge for 2 bundles of 24 cross connects will be waived for a User that is waitlisted for a cage for the duration of the waitlist period, provided that the cross connects may only be used to connect the User's non-contiguous cabinets. The charge will no longer be waived once a User is removed from the waitlist.

- If a waitlist is created, a User seeking a new cage will be placed on the waitlist based on the date a signed order for the cage is received.
- A User that turns down a cage because it is not the correct size will remain on the waitlist. A User that requests to be removed or that turns down a cage that is the size that it requested will be removed from the waitlist.
- A User that is removed from the waitlist but subsequently requests a cage will be added back to the bottom of the waitlist, provided that, if the User was removed from the waitlist because it turned down a cage that is the size that it requested, it will not receive a second waiver of the charge.

4. When a User purchases a service that includes access to the LCN or IP network, it receives the ability to access the trading and execution systems of the NYSE, NYSE American, NYSE Arca, NYSE Chicago, and NYSE National (together, the Exchange Systems) as well as of Global OTC (the Global OTC System), subject, in each case, to authorization by the NYSE, NYSE American, NYSE Arca, NYSE Chicago, NYSE National, or Global OTC, as applicable.

Such access includes access to the customer gateways that provide for order entry, order receipt (i.e. confirmation that an order has been received), receipt of drop copies and trade reporting (i.e. whether a trade is executed or cancelled), as well as for sending information to shared data services for clearing and settlement. A User can change the access it receives at any time, subject to authorization by NYSE, NYSE American, NYSE Arca, NYSE Chicago, NYSE National or Global OTC. NYSE, NYSE American, NYSE Arca, NYSE Chicago and NYSE National also offer access to Exchange Systems to their members, such that a User does not have to purchase access to the LCN or IP network to obtain access to the Global OTC System to its subscribers, such that a User does not have to purchase access to the LCN or IP network to obtain access to the Global OTC System.

5. When a User purchases a service that includes access to the LCN or IP network it receives connectivity to any of the Included Data Products that it selects, subject to any technical provisioning requirements and authorization from the provider of the data feed. Market data fees for the Included Data Products are charged by the provider of the data feed. A User can change the Included Data Products to which it receives connectivity at any time, subject to authorization from the provider of the data feed. The Exchange is not the exclusive method to connect to the Included Data Products.

The Included Data Products are as follows:

NMS feeds
CTA
CQ
OPRA
NYSE:
NYSE Alerts
NYSE BBO
NYSE Integrated Feed
NYSE OpenBook
NYSE Order Imbalances
NYSE Trades
NYSE American:
NYSE American Alerts
NYSE American BBO
NYSE American Integrated Feed
NYSE American OpenBook
NYSE American Order Imbalances
NYSE American Trades
NYSE American Options
NYSE Arca:
NYSE ArcaBook
NYSE Arca BBO
NYSE Arca Integrated Feed
NYSE Arca Order Imbalances
NYSE Arca Trades

NYSE Arca Options
NYSE Best Quote and Trades (BQT)
NYSE Bonds
NYSE Chicago
NYSE National

6. When a User purchases a service that includes access to the NMS network, upon its request it will receive connectivity to the NMS network and any of the NMS feeds that it selects, subject to any technical provisioning requirements and authorization from the provider of the data feed. Market data fees for the NMS feeds are charged by the provided of the NMS feed. The NMS network provides connectivity to the NMS feeds only.

NMS feeds		
CTA		
CQ		
OPRA		

7. Cabinet and Power Purchasing Limits. If (i) unallocated cabinet inventory is at or below 40 cabinets, whether or not such cabinets are configured to be subdivided into partial cabinets ("Cabinet Threshold"), or (ii) the unallocated power capacity in co-location is at or below 350 kW (the "Power Threshold"), the following limits on the purchase of new cabinets ("Purchasing Limits") will apply

- a. Cabinet Limits. If only the Cabinet Threshold is reached, the following measures (the "Cabinet Limits") will apply:
  - All Users with PNU cabinets will be required to either convert their PNU cabinets into dedicated cabinets or relinquish their PNU cabinets. The Exchange will notify each User with a PNU cabinet that the User has 30 business days to decide whether to contract to convert the PNU cabinet to a dedicated cabinet. If the User does not contract to use the PNU cabinet as a dedicated cabinet within such time, the PNU cabinet will be relinquished.
  - The Exchange will limit each User's purchase of new cabinets (dedicated and partial) to a maximum of four dedicated cabinets. The maximum may be comprised of a mix of dedicated and partial cabinets, with two partial cabinets counting as one dedicated cabinet.
  - If a User requests, in writing, a number of cabinets that, if provided, would cause the available cabinet inventory to be below 40 cabinets, the Cabinet Limits will only apply to the portion of the User's order below the Cabinet Threshold.
  - A User that has purchased cabinets subject to this Cabinet Limit, or any Affiliate of such User, will have to wait 30 days from the date of the User's signed order form before purchasing new cabinets again while such Cabinet Limit remains in effect.

- If the Cabinet Threshold is reached, the Exchange will cease offering or providing new PNU cabinets to all Users and Users will not be permitted to convert a currently used dedicated cabinet to a PNU cabinet.
- When unallocated cabinet inventory is more than 40 cabinets, the Exchange will discontinue the Cabinet Limits.
- b. Combined Limits. If only the Power Threshold is reached or both the Cabinet Threshold and the Power Threshold are reached, the following measures (the "Combined Limits") will apply:
  - All Users with PNU cabinets will be required to either convert their PNU cabinets into dedicated cabinets or relinquish their PNU cabinets. The Exchange will notify each User with a PNU cabinet that the User has 30 business days to decide whether to contract to convert the PNU cabinet to a dedicated cabinet. If the User does not contract to use the PNU cabinet as a dedicated cabinet within such time, the PNU cabinet will be relinquished.
  - A User may purchase either or both of the following, so long as the combined power usage of such purchases is no more than a maximum of 32 kW:
    - a. New cabinets (dedicated and partial), subject to a maximum of four dedicated cabinets with standard power allocations of 4 kW or 8 kW ("Standard Cabinets"). The purchase may be comprised of a mix of dedicated and partial cabinets, with two partial cabinets counting as one dedicated cabinet.
    - b. Additional power for new or existing cabinets.
  - If a User requests, in writing, a number of Standard Cabinets and/or an amount of additional power that, if provided, would cause the unallocated power capacity to be below the Power Threshold or Cabinet Threshold, the Combined Limits would apply only to the portion of the User's order below the relevant threshold.
  - A User that has purchased Standard Cabinets or additional power subject to these Combined Limits, or any Affiliate of such User, will have to wait 30 days from the date of the User's signed order form before purchasing new Standard Cabinets or additional power again while such Combined Limits remain in effect.
  - If the Power Threshold or Cabinet Threshold is reached, the Exchange will cease offering or providing new PNU cabinets to all Users and Users will not be permitted to convert a currently used dedicated cabinet to a PNU cabinet.
  - When unallocated power capacity is above the Power Threshold, the Exchange will discontinue the Combined Limits. If at that time the unallocated cabinet inventory is 40 or fewer cabinets, the Cabinet Limits would enter into effect.
- c. Applicability. If the Cabinet Threshold is reached before the Power Threshold, the

Cabinet Limits will be in effect until the Power Threshold is reached, after which the Combined Limits will apply.

- 8. Cabinet and Combined Waitlists.
  - a. Cabinet Waitlist. Unless a Combined Waitlist is in effect, the Exchange will create a cabinet waitlist ("Cabinet Waitlist") if the available cabinet inventory is zero, or a User requests, in writing, a number of cabinets that, if provided, would cause the available inventory to be zero. The Exchange will place Users seeking cabinets on a Cabinet Waitlist, as follows:
    - Users with PNU cabinets will be required to either convert their PNU cabinets into dedicated cabinets or relinquish their PNU cabinets in accordance with the measures set forth in General Note 7(a), above.
    - A User will be placed on the Cabinet Waitlist based on the date its signed order is received. A User may only have one order for new cabinets on the Cabinet Waitlist at a time, and the order is subject to the Cabinet Limits. If a User changes the size of its order while it is on the Cabinet Waitlist, it will maintain its place on the Cabinet Waitlist, provided that the User may not increase the size of its order such that it would exceed the Cabinet Limits. While a User is on the Cabinet Waitlist, no Affiliate of such User may also be on the Cabinet Waitlist.
    - As cabinets become available, the Exchange will offer them to the User at the top of the Cabinet Waitlist. If the User's order is completed, it will be removed from the Cabinet Waitlist. If the User's order is not completed, it will remain at the top of the Cabinet Waitlist.
    - A User will be removed from the Cabinet Waitlist (a) at the User's request or (b) if the User turns down an offer of a cabinet of the same size it requested in its order. If the Exchange offers the User a cabinet of a different size than the User requested in its order, the User may turn down the offer and remain at the top of the Cabinet Waitlist until its order is completed.
    - A User that is removed from the Cabinet Waitlist but subsequently submits a new written order for cabinets will be added back to the bottom of the Cabinet Waitlist.
    - When unallocated cabinet inventory is more than 10 cabinets, the Exchange will cease use of the Cabinet Waitlist.
  - b. Combined Waitlist. The Exchange would create a power and cabinet waitlist ("Combined Waitlist") if the unallocated power capacity is zero, or if a User requests, in writing, an amount of power (whether power allocated to a Standard Cabinet or additional power) that, if provided, would cause the unallocated power capacity to be below zero. The Exchange would place Users seeking cabinets or power on the Combined Waitlist, as follows:

- All Users with PNU cabinets will be required to either convert their PNU cabinets into dedicated cabinets or relinquish their PNU cabinets in accordance with the measures set forth in General Note 7(b), above.
- If a Cabinet Waitlist exists when the requirements to create a Combined Waitlist are met, the Cabinet Waitlist will automatically convert to the Combined Waitlist. If a Combined Waitlist exists when the requirements to create a Cabinet Waitlist are met, no new waitlist will be created, and the Combined Waitlist will continue in effect.
- A User will be placed on the Combined Waitlist based on the date its signed order for cabinets and/or additional power is received. A User may only have one order for new cabinets and/or additional power on the Combined Waitlist at a time, and the order would be subject to the Combined Limits. If a User changes the size of its order while it is on the Combined Waitlist, it will maintain its place on the Combined Waitlist, provided that the User may not increase the size of its order such that it would exceed the Combined Limits. While a User is on the Combined Waitlist, no Affiliate of such User may also be on the Combined Waitlist.
- As additional power and/or cabinets become available, the Exchange will offer them to the User at the top of the Combined Waitlist. If the User's order is completed, the order will be removed from the Combined Waitlist. If the User's order is not completed, it will remain at the top of the Combined Waitlist.
- A User will be removed from the Combined Waitlist (a) at the User's request; or (b) if the User turns down an offer that is the same as its order (e.g. the offer includes cabinets of the same size and/or the amount of additional power that the User requested in its order). If the Exchange offers the User an offer that is different than its order, the User may turn down the offer and remain at the top of the Combined Waitlist until its order is completed.
- A User that is removed from the Combined Waitlist but subsequently submits a new written order for cabinets and/or additional power will be added back to the bottom of the waitlist.
- If the Combined Waitlist is in effect, when unallocated power capacity in co-location is 100 kW or more, the Exchange will cease use of the Combined Waitlist. If at that time the unallocated cabinet inventory is 10 or fewer cabinets, the Cabinet Waitlist would enter into effect.

Initial Fee per Cabinet	
Dedicated Cabinet	\$5,000
8-Rack Unit of a Partial Cabinet	\$2,500
Monthly Fee for Cabinets	
Dedicated Cabinet	
Monthly fee is based on total kWs	
allocated to all of a User's dedicated	
cabinets	

Number of kWs	Per kW Fee Monthly
4-8	\$1,200
9-20	\$1,050
21-40	\$950
41+	\$900
8-Rack Unit of a Partial Cabinet	
Number of kWs	Total Fee Monthly
1	\$1,500
2	\$2,700
Cabinet Upgrade Fee	
Dedicated Cabinet	\$9,200 (\$4,600 for a User that submitted a written order for a Cabinet Upgrade by January 31, 2014, provided that the Cabinet Upgrade became fully operational by March 31, 2014)
PNU Cabinet	monthly charge of \$360 per kW allocated to PNU Cabinet
Cage Fees	
2–14 Cabinets	\$5,000 initial charge plus \$2,700 monthly charge
15 – 28 Cabinets	\$10,000 initial charge plus \$4,100 monthly charge
29+ Cabinets	\$15,000 initial charge plus \$5,500 monthly charge

Type of Service	Description	Amount of Charge
LCN and NMS Network Access	10 Gb LX LCN Circuit and 10 Gb NMS Network Circuit	<ul> <li>\$15,000 initial charge per connection to both the LCN and NMS Network plus</li> <li>\$22,000 monthly charge per connection to both the LCN and NMS Network.</li> <li>For purposes of these charges, the LCN Circuit and NMS Network Circuit are together considered to be one connection, and so Users are</li> </ul>

		not subject to two initial or two monthly charges.
LCN and NMS Network Access	40 Gb LCN Circuit and 40 Gb NMS Network Circuit	<ul> <li>\$15,000 initial charge per connection to both the LCN and NMS Network plus</li> <li>\$22,000 monthly charge per connection to both the LCN and NMS Network.</li> <li>For purposes of these charges, the LCN Circuit and NMS Network Circuit are together considered to be one connection, and so Users are not subject to two initial or two monthly charges.</li> </ul>
Partial Cabinet Solution bundles Note: A User and its Affiliates are limited to one Partial Cabinet Solution bundle at a time. A User and its	Option A: 1 kW partial cabinet, 1 LCN connection (1 Gb), 1 IP network connections and either the Network Time Protocol Feed or Precision Timing Protocol	<ul> <li>\$7,500 initial charge per bundle plus monthly charge per bundle as follows:</li> <li>For Users that order on or before December 31, 2020:</li> <li>\$3,000 monthly for first 24 months of service, and \$6,000 monthly thereafter</li> <li>For Users that order after December 31, 2020: \$6,000 monthly</li> </ul>
Affiliates must have an Aggregate Cabinet Footprint of 2 kW or less to qualify for a Partial Cabinet Solution bundle. See Note 2 under "General Notes."	Option B: 2 kW partial cabinet, 1 LCN connection (1 Gb), 1 IP network connection (1 Gb), 2 fiber cross connections and either the Network Time Protocol Feed or Precision Timing Protocol	<ul> <li>\$7,500 initial charge per bundle plus monthly charge per bundle as follows:</li> <li>For Users that order on or before December 31, 2020: \$3,500 monthly for first 24 months of service, and \$7,000 monthly thereafter</li> <li>For Users that order after December 31, 2020: \$7,000 monthly</li> </ul>

	Option C: 1 kW partial cabinet, 1 LCN connection (10 Gb LX), 1 IP network connections (10 Gb), 2 NMS Network connections (10 Gb each), 2 fiber cross connections and either the Network Time Protocol Feed or Precision Timing Protocol	<ul> <li>\$10,000 initial charge per bundle plus monthly charge per bundle as follows:</li> <li>For Users that order on or before December 31, 2020: \$7,000 monthly for first 24 months of service, and \$14,000 monthly thereafter</li> <li>For Users that order after December 31, 2020: \$14,000 monthly</li> </ul>
	Option D: 2 kW partial cabinet, 1 LCN connection (10 Gb LX), 1 IP network connection (10 Gb), 2 NMS Network connections (10 Gb each), 2 fiber cross connections and either the Network Time Protocol Feed or Precision Timing Protocol	<ul> <li>\$10,000 initial charge per bundle plus monthly charge per bundle as follows:</li> <li>For Users that order on or before December 31, 2020:</li> <li>\$7,500 monthly for first 24 months of service, and \$15,000 monthly thereafter</li> <li>For Users that order after December 31, 2020: \$15,000 monthly</li> </ul>
IP Network Access	1 Gb Circuit	\$2,500 per connection initial charge plus \$2,500 monthly per connection
IP Network and NMS Network Access	10 Gb IP Network Circuit and 10 Gb NMS Network Circuit	<ul> <li>\$10,000 initial charge per connection to both the IP Network and NMS Network plus \$11,000 monthly charge per connection to both the IP Network and NMS Network.</li> <li>For purposes of these charges, the IP Network</li> <li>Circuit and NMS Network</li> <li>Circuit are together considered to be one connection, and so Users are not subject to two initial or two monthly charges.</li> </ul>

IP Network and NMS Network Access	40 Gb IP Network Circuit and 40 Gb NMS Network Circuit	<ul> <li>\$10,000 initial charge per connection to both the IP Network and NMS Network plus \$18,000 monthly charge per connection to both the IP Network and NMS Network.</li> <li>For purposes of these charges, the IP Network Circuit and NMS Network Circuit are together considered to be one connection, and so Users are not subject to two initial or two monthly charges.</li> </ul>
Testing and certification IP Network Access	IP network circuit for testing and certification. Circuit can only be used for testing and certification and testing and certification period is limited to three months.	No charge.
Wireless Connection for Third Party Data	Wireless connection of Cboe Pitch BZX Gig shaped data and Cboe Pitch BYX Gig shaped data	<ul> <li>\$5,000 per connection initial charge plus monthly charge per connection of \$6,000</li> <li>Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.</li> </ul>
Wireless Connection for Third Party Data	Wireless connection of Cboe EDGX Gig shaped data and Cboe EDGA Gig shaped data	\$5,000 per connection initial charge plus monthly charge per connection of \$6,000 Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.
Wireless Connection for Third Party Data	Wireless connection of NASDAQ Totalview-ITCH data	<ul><li>\$5,000 per connection initial charge plus monthly charge per connection of \$8,500</li><li>Fees are subject to a 30-day testing period, during which the monthly charge per</li></ul>

		connection is waived.
Wireless Connection for Third Party Data	Wireless connection of NASDAQ BX Totalview-ITCH data	<ul> <li>\$5,000 per connection initial charge plus monthly charge per connection of \$6,000</li> <li>Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.</li> </ul>
Wireless Connection for Third Party Data	Wireless connection of NASDAQ Totalview Ultra (FPGA)	<ul> <li>\$5,000 per connection initial charge plus monthly charge per connection of \$11,000</li> <li>Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.</li> </ul>
Wireless Connection for Third Party Data	Wireless connection of NASDAQ Totalview-ITCH and BX Totalview- ITCH data	<ul> <li>\$5,000 per connection initial charge plus monthly charge per connection of \$12,000</li> <li>Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.</li> </ul>
Wireless Connection for Third Party Data	Wireless connection of NASDAQ Totalview Ultra (FPGA) and BX Totalview-ITCH data	<ul> <li>\$5,000 per connection initial charge plus monthly charge per connection of \$14,500</li> <li>Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.</li> </ul>
Wireless Connection for Third Party Data	Wireless connection of Toronto Stock Exchange (TSX)	<ul> <li>\$5,000 per connection initial charge plus monthly charge per connection of \$8,500</li> <li>Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.</li> </ul>
Wireless Connection	Port for wireless connection	\$3,000 monthly charge per

for Third Party Data		port, excluding first port
Virtual Control Circuit	1Mb	\$200 monthly charge
	3Mb	\$400 monthly charge
	5Mb	\$500 monthly charge
between two Users	10Мb	\$800 monthly charge
	25Mb	\$1,200 monthly charge
	50Mb	\$1,800 monthly charge
	100Mb	\$2,500 monthly charge
Hosting Fee		\$1,000 monthly charge per cabinet per Hosted Customer for each cabinet in which such Hosted Customer is hosted
	Furnish and install 1 cross connect	\$500 initial charge plus \$600 monthly charge
	Furnish and install bundle of 6 cross connects Furnish and install bundle of 12 cross	<ul><li>\$500 initial charge plus</li><li>\$1,800 monthly charge</li><li>\$500 initial charge plus</li></ul>
Data Center Fiber Cross Connect	connects Furnish and install bundle of 18 cross connects	<ul><li>\$3,000 monthly charge</li><li>\$500 initial charge plus</li><li>\$3,840 monthly charge</li></ul>
	Furnish and install bundle of 24 cross connects	\$500 initial charge plus \$4,680 monthly charge
	Network Time Protocol Feed	See General Note 3. \$300 initial charge plus \$100
	(Note: LCN only)	monthly charge
Connection to Time Protocol Feed	Precision Time Protocol	\$1,000 initial charge plus \$250 monthly charge
	GPS Time Source (Note: dedicated cabinets only)	\$3,000 initial charge plus \$400 monthly charge
Expedite Fee	Expedited installation/completion of a User's co-location service	\$4,000 per request
Change Fee***	Change to a co-location service that has already been installed/completed for a User	\$950 per request
Initial Install Services*** (Required per cabinet)	Dedicated Cabinet: Includes initial racking of equipment in cabinet and provision of cables (4 hrs).	\$800 per dedicated cabinet

	Partial Cabinet: Includes initial racking of equipment in cabinet and provision of cables (2 hrs).	\$400 per eight-rack unit in a partial cabinet
Hot Hands Service***	Allows Users to use on-site data center personnel to maintain User equipment, support network troubleshooting, rack and stack, power recycling, and install and document cable.	\$100 per half hour
Shipping and Receiving***	Receipt of one shipment of goods at data center from User/supplier. Includes coordination of shipping and receiving.	\$100 per shipment
Badge Request***	Request for provision of a permanent data center site access badge for a User representative.	\$50 per badge
External Cabinet Cable Tray***	Engineer, furnish and install Rittal 5"H x 12"W cable tray on cabinet.	\$400 per tray
Custom External Cabinet Cable Tray***	Engineer, furnish and install 4" H x 24" W custom basket cable tray above client's cabinet rows.	\$100 per linear foot
Visitor Security Escort***	All User representatives are required to be accompanied by a visitor security escort during visits to the data center, unless visiting the User's cage. Requirement includes User representatives who have a permanent data center site access badge.	\$75 per visit

\*\*\* These fees are waived for the move of a User's equipment within the Data Center when incurred in connection with such a move required by the Exchange ("Migration Move"). A User selected by the Exchange for a Migration Move will receive written notice (the "Notice"). The Notice will identify the 90-day period during which a User must move its equipment, which period would commence at least 60 days from the date of the Notice. Monthly recurring fees for the User's existing space based on the rate of the monthly recurring fees that the User was paying as of the date of the Notice are also waived for the month during which a User's Migration Move takes place, so the User would not incur these fees for the period of overlapping use of equipment and services in the old and new locations. In addition, the monthly recurring charges are waived for the month following the completion of a User's Migration Move, based on the rate of the monthly recurring fees that the User was paying as of the date of the month following the completion of a User's Migration Move, based on the rate of the monthly recurring fees that the User was paying as of the date of the Notice. No User will be required to move more than once within any 12-month period.

# **Co-Location:** Connectivity to Third Party Systems, Data Feeds, Testing and Certification Feeds, and DTCC

#### Connectivity to Third Party Systems

Pricing for access to the execution systems of third party markets and other service providers (Third Party Systems) is for connectivity only. Connectivity to Third Party Systems is subject to any technical provisioning requirements and authorization from the provider of the data feed. Connectivity to Third Party Systems is over the IP network. Any applicable fees are charged independently by the relevant third party content service provider. The Exchange is not the exclusive method to connect to Third Party Systems.

Bandwidth of connection to Third Party System	Monthly recurring fee per connection to Third Party System
1Mb	\$200
3Mb	\$400
5Mb	\$500
10Mb	\$800
25Mb	\$1,200
50Mb	\$1,800
100Mb	\$2,500
200 Mb	\$3,000
1 Gb	\$3,500

Third Party Systems
Americas Trading Group (ATG)
BM&F Bovespa
Boston Options Exchange (BOX)
Canadian Securities Exchange (CSE)
Cboe BYX Exchange (CboeBYX), Cboe
BZX Exchange (CboeBZX), Cboe EDGA
Exchange (CboeEDGA), and Cboe EDGX
Exchange (CboeEDGX)
Cboe Exchange (Cboe) and Cboe C2
Exchange (C2)
Chicago Mercantile Exchange (CME Group)
Credit Suisse
Euronext Optiq Cash and Derivatives
Unicast (EUA)
Euronext Optiq Cash and Derivatives
Unicast (Production)
Investors Exchange (IEX)
ITG TriAct Matchnow
MIAX Options
MIAX PEARL Options

Nasdaq
NASDAQ Canada (CXC, CXD, CX2)
NASDAQ ISE
Neo Aequitas
NYFIX Marketplace
Omega
OneChicago
OTC Markets Group
TMX Group

#### Connectivity to Third Party Data Feeds

Pricing for data feeds from third party markets and other content service providers (Third Party Data Feeds) is for connectivity only. Connectivity to Third Party Data Feeds is subject to any technical provisioning requirements and authorization from the provider of the data feed. Connectivity to Third Party Data Fees is over the IP network, with the exception that Users can connect to Global OTC over the IP network or LCN. Market data fees are charged independently by the relevant third party market or content service provider. The Exchange is not the exclusive method to connect to Third Party Data Feeds.

Third Party Data Feed providers may charge redistribution fees. When the Exchange receives a redistribution fee, it passes through the charge to the User, without change to the fee. The fee is labeled as a pass-through of a redistribution fee on the User's invoice. The Exchange does not charge third party markets or content providers for connectivity to their own feeds.

	Monthly Recurring Connectivity Fee per Third Party Data
Third Party Data Feed	Feed
BM&F Bovespa	\$3,000
Boston Options Exchange (BOX)	\$1,000
Canadian Securities Exchange (CSE)	\$1,000
Cboe BZX Exchange (CboeBZX) and Cboe BYX	\$2,000
Exchange (CboeBYX)	
Cboe EDGX Exchange (CboeEDGX) and Cboe EDGA	\$2,000
Exchange (CboeEDGA)	
Cboe Exchange (Cboe) and Cboe C2 Exchange (C2)	\$2,000
CME Group	\$3,000
Euronext Optiq Compressed Cash	\$900
Euronext Optiq Compressed Derivatives	\$600
Euronext Optiq Shaped Cash	\$1,200
Euronext Optiq Shaped Derivatives	\$900
Financial Industry Regulatory Authority (FINRA)	\$500

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	TMX Group	\$2,500

Connectivity to Third Party Testing and Certification Feeds

The Exchange provides connectivity to third party testing and certification feeds provided by third party markets and other content service providers. Pricing for third party testing and

certification feeds is for connectivity only. Connectivity to third party testing and certification feeds is subject to any technical provisioning requirements and authorization from the provider of the data feed. Connectivity to third party testing and certification feeds is over the IP network. Any applicable fees are charged independently by the relevant third party market or content service provider. The Exchange is not the exclusive method to connect to third party testing and certification feeds.

Connectivity to third party certification and testing feeds	\$100 monthly recurring fee per feed
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# Connectivity to DTCC

Pricing for connectivity to DTCC feeds is for connectivity only. Connectivity to DTCC feeds is subject to any technical provisioning requirements and authorization from DTCC. Connectivity to DTCC feeds is over the IP network. Any applicable fees are charged independently by DTCC. The Exchange is not the exclusive method to connect to DTCC feeds.

5 Mb connection to DTCC	\$500 monthly recurring fee
50 Mb connection to DTCC	\$2,500 monthly recurring fee]

\* \* \* \* \*

EXHIBIT 5B

Additions <u>underscored</u> Deletions [bracketed]

#### New York Stock Exchange LLC NYSE American LLC NYSE Arca, Inc. NYSE Chicago, Inc. NYSE National, Inc.

# [Wireless] Connectivity Fee[s and Charges] Schedule

# Last Updated: [December 14, 2020] August 24, 2022

#### **General Note**

A market participant that incurs fees from the New York Stock Exchange LLC, NYSE American LLC, NYSE Arca, Inc., NYSE Chicago, Inc. or NYSE National, Inc. (collectively, the "Affiliate SROs") for a particular service pursuant to this Fee Schedule shall not be subject to fees for the same service charged by the other Affiliate SROs.

#### A. Co-Location Fees

**Colocation Definitions** 

The following definitions are for purposes of Co-Location Fees only:

An "Affiliate" of a User is any other User or Hosted Customer that is under 50% or greater common ownership or control of the first User.

"Aggregate Cabinet Footprint" of a User or Hosted Customer is (a) for a User, the total kW of the User's cabinets, including both partial and dedicated cabinets, and (b), for a Hosted Customer, the total kW of the portion of the Hosting User's cabinet, whether partial or dedicated, allocated to such Hosted Customer.

<u>A "Hosted Customer" means a customer of a Hosting User that is hosted in a Hosting User's colocation space.</u>

<u>A "Hosting User" means a User of co-location services that hosts a Hosted Customer in the User's co-location space.</u>

<u>A</u> "User" means any market participant that requests to receive co-location services directly from the Exchange.

#### **Colocation Notes**

1. To qualify for a Partial Cabinet Solution bundle, a User must meet the following conditions: (1) it must purchase only one Partial Cabinet Solution bundle; (2) the User and its Affiliates must not currently have a Partial Cabinet Solution bundle; and (3) after the purchase of the Partial Cabinet Solution bundle, the User, together with its Affiliates, will have an Aggregate Cabinet Footprint of no more than 2 kW.

- <u>A User requesting a Partial Cabinet Solution bundle will be required to certify to the Exchange (a) whether any other Users or Hosted Customers are Affiliates of the certificating User, and (b) that after the purchase of the Partial Cabinet Solution bundle, the User, together with its Affiliates, would have an Aggregate Cabinet Footprint of no more than 2 kW. The certificating User will be required to inform the Exchange immediately of any event that causes another User or Hosted Customer to become an Affiliate. The Exchange shall review available information regarding the entities and may request additional information to verify the Affiliate status of a User or Hosted Customer. The Exchange shall approve a request for a Partial Cabinet Solution bundle unless it determines that the certification is not accurate.</u>
- If a User that has purchased a Partial Cabinet Solution bundle becomes affiliated with one or more other Users or Hosted Customers and thereby no longer meets the conditions for access to the Partial Cabinet Solution bundle, or if the User otherwise ceases to meet the conditions for access to the Partial Cabinet Solution bundle, the Exchange will no longer offer it to such User and the User will be charged for each of the services individually, at the price for each such service set out in the Price List. Such price change would be effective as of the date that the User ceased to meet the conditions.

In addition, a User that changes its Partial Cabinet Solution bundle from one option to another will not be subject to a second initial charge, but will be required to pay the difference, if any, between the bundles' initial charges.

2. The initial and monthly charge for 2 bundles of 24 cross connects will be waived for a User that is waitlisted for a cage for the duration of the waitlist period, provided that the cross connects may only be used to connect the User's non-contiguous cabinets. The charge will no longer be waived once a User is removed from the waitlist.

- If a waitlist is created, a User seeking a new cage will be placed on the waitlist based on the date a signed order for the cage is received.
- <u>A User that turns down a cage because it is not the correct size will remain on the waitlist. A User that requests to be removed or that turns down a cage that is the size that it requested will be removed from the waitlist.</u>
- <u>A User that is removed from the waitlist but subsequently requests a cage will be</u> added back to the bottom of the waitlist, provided that, if the User was removed from

the waitlist because it turned down a cage that is the size that it requested, it will not receive a second waiver of the charge.

3. When a User purchases a service that includes access to the LCN or IP network, it receives the ability to access the trading and execution systems of the NYSE, NYSE American, NYSE Arca, NYSE Chicago, and NYSE National (together, the Exchange Systems) as well as of Global OTC (the Global OTC System), subject, in each case, to authorization by the NYSE, NYSE American, NYSE Arca, NYSE Chicago, NYSE National, or Global OTC, as applicable. Such access includes access to the customer gateways that provide for order entry, order receipt (i.e. confirmation that an order has been received), receipt of drop copies and trade reporting (i.e. whether a trade is executed or cancelled), as well as for sending information to shared data services for clearing and settlement. A User can change the access it receives at any time, subject to authorization by NYSE, NYSE American, NYSE Arca, NYSE Chicago and NYSE National or Global OTC. NYSE, NYSE American, NYSE Arca, NYSE Chicago and NYSE National also offer access to Exchange Systems to their members, such that a User does not have to purchase access to the Global OTC System to its subscribers, such that a User does not have to purchase access to the LCN or IP network to obtain access to the Global OTC System.

4. When a User purchases a service that includes access to the LCN or IP network it receives connectivity to any of the Included Data Products that it selects, subject to any technical provisioning requirements and authorization from the provider of the data feed. Market data fees for the Included Data Products are charged by the provider of the data feed. A User can change the Included Data Products to which it receives connectivity at any time, subject to authorization from the provider of the data feed. The Exchange is not the exclusive method to connect to the Included Data Products.

The Included Data Products are as follows:

<u>NMS feeds</u>
<u>CTA</u>
CQ
<u>OPRA</u>
<u>NYSE:</u>
NYSE Alerts
<u>NYSE BBO</u>
NYSE Integrated Feed
NYSE OpenBook
NYSE Order Imbalances
NYSE Trades
NYSE American:
NYSE American Alerts
NYSE American BBO
NYSE American Integrated Feed
NYSE American OpenBook

NYSE American Order Imbalances
NYSE American Trades
NYSE American Options
NYSE Arca:
NYSE ArcaBook
NYSE Arca BBO
NYSE Arca Integrated Feed
NYSE Arca Order Imbalances
NYSE Arca Trades
NYSE Arca Options
NYSE Best Quote and Trades (BQT)
NYSE Bonds
NYSE Chicago
NYSE National

5. When a User purchases a service that includes access to the NMS network, upon its request it will receive connectivity to the NMS network and any of the NMS feeds that it selects, subject to any technical provisioning requirements and authorization from the provider of the data feed. Market data fees for the NMS feeds are charged by the provided of the NMS feed. The NMS network provides connectivity to the NMS feeds only.

NMS feeds		
CTA		
CQ		
<u>OPRA</u>		

6. Cabinet and Power Purchasing Limits. If (i) unallocated cabinet inventory is at or below 40 cabinets, whether or not such cabinets are configured to be subdivided into partial cabinets ("Cabinet Threshold"), or (ii) the unallocated power capacity in co-location is at or below 350 kW (the "Power Threshold"), the following limits on the purchase of new cabinets ("Purchasing Limits") will apply

a. Cabinet Limits. If only the Cabinet Threshold is reached, the following measures (the "Cabinet Limits") will apply:

- <u>All Users with PNU cabinets will be required to either convert their PNU cabinets into</u> dedicated cabinets or relinquish their PNU cabinets. The Exchange will notify each <u>User with a PNU cabinet that the User has 30 business days to decide whether to</u> <u>contract to convert the PNU cabinet to a dedicated cabinet. If the User does not</u> <u>contract to use the PNU cabinet as a dedicated cabinet within such time, the PNU cabinet will be relinquished.</u>
- <u>The Exchange will limit each User's purchase of new cabinets (dedicated and partial)</u> to a maximum of four dedicated cabinets. The maximum may be comprised of a mix

of dedicated and partial cabinets, with two partial cabinets counting as one dedicated cabinet.

- If a User requests, in writing, a number of cabinets that, if provided, would cause the available cabinet inventory to be below 40 cabinets, the Cabinet Limits will only apply to the portion of the User's order below the Cabinet Threshold.
- <u>A User that has purchased cabinets subject to this Cabinet Limit, or any Affiliate of such User, will have to wait 30 days from the date of the User's signed order form before purchasing new cabinets again while such Cabinet Limit remains in effect.</u>
- If the Cabinet Threshold is reached, the Exchange will cease offering or providing new <u>PNU</u> cabinets to all Users and Users will not be permitted to convert a currently used <u>dedicated cabinet to a PNU cabinet.</u>
- When unallocated cabinet inventory is more than 40 cabinets, the Exchange will discontinue the Cabinet Limits.
- b. Combined Limits. If only the Power Threshold is reached or both the Cabinet Threshold and the Power Threshold are reached, the following measures (the "Combined Limits") will apply:
  - <u>All Users with PNU cabinets will be required to either convert their PNU cabinets into</u> dedicated cabinets or relinquish their PNU cabinets. The Exchange will notify each <u>User with a PNU cabinet that the User has 30 business days to decide whether to</u> <u>contract to convert the PNU cabinet to a dedicated cabinet. If the User does not</u> <u>contract to use the PNU cabinet as a dedicated cabinet within such time, the PNU cabinet will be relinquished.</u>
  - <u>A User may purchase either or both of the following, so long as the combined power</u> usage of such purchases is no more than a maximum of 32 kW:
    - a. <u>New cabinets (dedicated and partial), subject to a maximum of four dedicated</u> <u>cabinets with standard power allocations of 4 kW or 8 kW ("Standard</u> <u>Cabinets"). The purchase may be comprised of a mix of dedicated and partial</u> <u>cabinets, with two partial cabinets counting as one dedicated cabinet.</u>
    - b. Additional power for new or existing cabinets.
  - If a User requests, in writing, a number of Standard Cabinets and/or an amount of additional power that, if provided, would cause the unallocated power capacity to be below the Power Threshold or Cabinet Threshold, the Combined Limits would apply only to the portion of the User's order below the relevant threshold.
  - <u>A User that has purchased Standard Cabinets or additional power subject to these</u> <u>Combined Limits, or any Affiliate of such User, will have to wait 30 days from the</u>

date of the User's signed order form before purchasing new Standard Cabinets or additional power again while such Combined Limits remain in effect.

- If the Power Threshold or Cabinet Threshold is reached, the Exchange will cease offering or providing new PNU cabinets to all Users and Users will not be permitted to convert a currently used dedicated cabinet to a PNU cabinet.
- When unallocated power capacity is above the Power Threshold, the Exchange will discontinue the Combined Limits. If at that time the unallocated cabinet inventory is 40 or fewer cabinets, the Cabinet Limits would enter into effect.
- c. Applicability. If the Cabinet Threshold is reached before the Power Threshold, the Cabinet Limits will be in effect until the Power Threshold is reached, after which the Combined Limits will apply.
- 7. Cabinet and Combined Waitlists.
  - a. Cabinet Waitlist. Unless a Combined Waitlist is in effect, the Exchange will create a cabinet waitlist ("Cabinet Waitlist") if the available cabinet inventory is zero, or a User requests, in writing, a number of cabinets that, if provided, would cause the available inventory to be zero. The Exchange will place Users seeking cabinets on a Cabinet Waitlist, as follows:
    - <u>Users with PNU cabinets will be required to either convert their PNU cabinets into</u> <u>dedicated cabinets or relinquish their PNU cabinets in accordance with the measures</u> <u>set forth in Colocation Note 6(a), above.</u>
    - <u>A User will be placed on the Cabinet Waitlist based on the date its signed order is</u> received. A User may only have one order for new cabinets on the Cabinet Waitlist at a time, and the order is subject to the Cabinet Limits. If a User changes the size of its order while it is on the Cabinet Waitlist, it will maintain its place on the Cabinet Waitlist, provided that the User may not increase the size of its order such that it would exceed the Cabinet Limits. While a User is on the Cabinet Waitlist, no Affiliate of such User may also be on the Cabinet Waitlist.
    - <u>As cabinets become available, the Exchange will offer them to the User at the top of the Cabinet Waitlist. If the User's order is completed, it will be removed from the Cabinet Waitlist. If the User's order is not completed, it will remain at the top of the Cabinet Waitlist.</u>
    - <u>A User will be removed from the Cabinet Waitlist (a) at the User's request or (b) if</u> the User turns down an offer of a cabinet of the same size it requested in its order. If the Exchange offers the User a cabinet of a different size than the User requested in its order, the User may turn down the offer and remain at the top of the Cabinet Waitlist until its order is completed.

- <u>A User that is removed from the Cabinet Waitlist but subsequently submits a new</u> written order for cabinets will be added back to the bottom of the Cabinet Waitlist.
- When unallocated cabinet inventory is more than 10 cabinets, the Exchange will cease use of the Cabinet Waitlist.
- b. Combined Waitlist. The Exchange would create a power and cabinet waitlist ("Combined Waitlist") if the unallocated power capacity is zero, or if a User requests, in writing, an amount of power (whether power allocated to a Standard Cabinet or additional power) that, if provided, would cause the unallocated power capacity to be below zero. The Exchange would place Users seeking cabinets or power on the Combined Waitlist, as follows:
  - <u>All Users with PNU cabinets will be required to either convert their PNU cabinets into</u> <u>dedicated cabinets or relinquish their PNU cabinets in accordance with the measures</u> <u>set forth in Colocation Note 6(b), above.</u>
  - If a Cabinet Waitlist exists when the requirements to create a Combined Waitlist are met, the Cabinet Waitlist will automatically convert to the Combined Waitlist. If a Combined Waitlist exists when the requirements to create a Cabinet Waitlist are met, no new waitlist will be created, and the Combined Waitlist will continue in effect.
  - <u>A User will be placed on the Combined Waitlist based on the date its signed order for cabinets and/or additional power is received. A User may only have one order for new cabinets and/or additional power on the Combined Waitlist at a time, and the order would be subject to the Combined Limits. If a User changes the size of its order while it is on the Combined Waitlist, it will maintain its place on the Combined Waitlist, provided that the User may not increase the size of its order such that it would exceed the Combined Limits. While a User is on the Combined Waitlist, no Affiliate of such User may also be on the Combined Waitlist.</u>
  - <u>As additional power and/or cabinets become available, the Exchange will offer them to</u> the User at the top of the Combined Waitlist. If the User's order is completed, the order will be removed from the Combined Waitlist. If the User's order is not completed, it will remain at the top of the Combined Waitlist.
  - <u>A User will be removed from the Combined Waitlist (a) at the User's request; or (b) if</u> the User turns down an offer that is the same as its order (e.g. the offer includes cabinets of the same size and/or the amount of additional power that the User requested in its order). If the Exchange offers the User an offer that is different than its order, the User may turn down the offer and remain at the top of the Combined Waitlist until its order is completed.
  - <u>A User that is removed from the Combined Waitlist but subsequently submits a new</u> written order for cabinets and/or additional power will be added back to the bottom of the waitlist.

• If the Combined Waitlist is in effect, when unallocated power capacity in co-location is 100 kW or more, the Exchange will cease use of the Combined Waitlist. If at that time the unallocated cabinet inventory is 10 or fewer cabinets, the Cabinet Waitlist would enter into effect.

Initial Fee per Cabinet	
Dedicated Cabinet	<u>\$5,000</u>
8-Rack Unit of a Partial Cabinet	\$2,500
Monthly Fee for Cabinets	
Dedicated Cabinet Monthly fee is based on total kWs allocated to all of a User's dedicated	
cabinets	
Number of kWs	Per kW Fee Monthly
4-8	<u>\$1,200</u>
9-20	<u>\$1,050</u>
<u>21-40</u>	<u>\$950</u>
<u>41+</u>	<u>\$900</u>
<u>8-Rack Unit of a Partial Cabinet</u>	
Number of kWs	<b>Total Fee Monthly</b>
1	<u>\$1,500</u>
2	<u>\$2,700</u>
Cabinet Upgrade Fee	
Dedicated Cabinet	<u>\$9,200 (\$4,600 for a User that</u> <u>submitted a written order for a Cabinet</u> <u>Upgrade by January 31, 2014,</u> <u>provided that the Cabinet Upgrade</u> <u>became fully operational by March 31,</u> <u>2014)</u>
PNU Cabinet	monthly charge of \$360 per kW allocated to PNU Cabinet
Cage Fees	
<u>2–14 Cabinets</u>	\$5,000 initial charge plus \$2,700 monthly charge
<u>15 – 28 Cabinets</u>	<u>\$10,000 initial charge plus \$4,100</u> monthly charge
<u>29+ Cabinets</u>	<u>\$15,000 initial charge plus \$5,500</u> monthly charge

<b>Type of Service</b>	Description	Amount of Charge
LCN and NMS Network Access	<u>10 Gb LX LCN Circuit and 10 Gb</u> <u>NMS Network Circuit</u>	<ul> <li>\$15,000 initial charge per connection to both the LCN and NMS Network plus</li> <li>\$22,000 monthly charge per connection to both the LCN and NMS Network.</li> <li>For purposes of these charges, the LCN Circuit and NMS Network Circuit are together considered to be one connection, and so Users are not subject to two initial or two monthly charges.</li> </ul>
LCN and NMS Network Access	<u>40 Gb LCN Circuit and 40 Gb NMS</u> <u>Network Circuit</u>	\$15,000 initial charge per connection to both the LCN and NMS Network plus\$22,000 monthly charge per connection to both the LCN and NMS Network.For purposes of these charges, the LCN Circuit and NMS Network Circuit are together considered to be one connection, and so Users are not subject to two initial or two monthly charges.
Partial Cabinet SolutionbundlesNote: A User and itsAffiliates are limited toone Partial CabinetSolution bundle at atime. A User and itsAffiliates must have anAggregate CabinetFootprint of 2 kW orless to qualify for aPartial Cabinet Solution	<u>Option A:</u> <u>1 kW partial cabinet, 1 LCN</u> <u>connection (1 Gb), 1 IP network</u> <u>connection (1 Gb), 2 fiber cross</u> <u>connections and either the Network</u> <u>Time Protocol Feed or Precision</u> <u>Timing Protocol</u>	<ul> <li>\$7,500 initial charge per bundle plus monthly charge per bundle as follows:</li> <li>For Users that order on or before December 31, 2020: \$3,000 monthly for first 24 months of service, and \$6,000 monthly thereafter</li> <li>For Users that order after December 31,</li> </ul>

bundle. See Note 1		2020: \$6,000 monthly
<u>bundle. See Note 1</u> <u>under "Colocation</u> <u>Notes."</u>		<u>2020: \$6,000 monthly</u>
	Option B: 2 kW partial cabinet, 1 LCN connection (1 Gb), 1 IP network connections and either the Network Time Protocol Feed or Precision Timing Protocol	<ul> <li>\$7,500 initial charge per bundle plus monthly charge per bundle as follows:</li> <li>For Users that order on or before December 31, 2020: \$3,500 monthly for first 24 months of service, and \$7,000 monthly thereafter</li> <li>For Users that order after December 31, 2020: \$7,000 monthly</li> </ul>
	Option C: <u>1 kW partial cabinet, 1 LCN</u> <u>connection (10 Gb LX), 1 IP network</u> <u>connections (10 Gb), 2 NMS Network</u> <u>connections (10 Gb each), 2 fiber</u> <u>cross connections and either the</u> <u>Network Time Protocol Feed or</u> <u>Precision Timing Protocol</u>	<ul> <li>\$10,000 initial charge per bundle plus monthly charge per bundle as follows:</li> <li>For Users that order on or before December 31, 2020: \$7,000 monthly for first 24 months of service, and \$14,000 monthly thereafter</li> <li>For Users that order after December 31, 2020: \$14,000 monthly</li> </ul>
	Option D:2 kW partial cabinet, 1 LCNconnection (10 Gb LX), 1 IP networkconnection (10 Gb), 2 NMS Networkconnections (10 Gb each), 2 fibercross connections and either theNetwork Time Protocol Feed orPrecision Timing Protocol	<ul> <li>\$10,000 initial charge per bundle plus monthly charge per bundle as follows:</li> <li>For Users that order on or before December 31, 2020: \$7,500 monthly for first 24 months of</li> </ul>

		service, and \$15,000 monthly thereafter • For Users that order after December 31, 2020: \$15,000 monthly \$2,500 per connection initial
IP Network Access	<u>1 Gb Circuit</u>	charge plus \$2,500 monthly per connection
IP Network and NMS Network Access	<u>10 Gb IP Network Circuit and 10 Gb</u> <u>NMS Network Circuit</u>	<u>\$10,000 initial charge per</u> <u>connection to both the IP</u> <u>Network and NMS Network</u> <u>plus \$11,000 monthly charge</u> <u>per connection to both the IP</u> <u>Network and NMS Network.</u> <u>For purposes of these</u> <u>charges, the IP Network</u> <u>Circuit and NMS Network</u> <u>Circuit are together</u> <u>considered to be one</u> <u>connection, and so Users are</u> <u>not subject to two initial or</u> <u>two monthly charges.</u>
IP Network and NMS Network Access	40 Gb IP Network Circuit and 40 Gb NMS Network Circuit	\$10,000 initial charge per connection to both the IP Network and NMS Network plus \$18,000 monthly charge per connection to both the IP Network and NMS Network. For purposes of these charges, the IP Network Circuit and NMS Network Circuit are together considered to be one connection, and so Users are not subject to two initial or two monthly charges.
<u>Testing and</u> <u>certification IP Network</u> <u>Access</u>	IP network circuit for testing and certification. Circuit can only be used for testing and certification and testing and certification period is limited to three months.	No charge.

Wireless Connection for Third Party Data	Wireless connection of Cboe Pitch BZX Gig shaped data and Cboe Pitch BYX Gig shaped data	\$5,000 per connection initial charge plus monthly charge per connection of \$6,000 Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.
<u>Wireless Connection</u> for Third Party Data	Wireless connection of Cboe EDGX Gig shaped data and Cboe EDGA Gig shaped data	\$5,000 per connection initial charge plus monthly charge per connection of \$6,000 Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.
<u>Wireless Connection</u> for Third Party Data	Wireless connection of NASDAQ Totalview-ITCH data	\$5,000 per connection initial charge plus monthly charge per connection of \$8,500 Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.
<u>Wireless Connection</u> for Third Party Data	Wireless connection of NASDAQ BX Totalview-ITCH data	\$5,000 per connection initial charge plus monthly charge per connection of \$6,000 Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.
<u>Wireless Connection</u> for Third Party Data	<u>Wireless connection of NASDAQ</u> <u>Totalview Ultra (FPGA)</u>	\$5,000 per connection initial charge plus monthly charge per connection of \$11,000 Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.
Wireless Connection for Third Party Data	Wireless connection of NASDAQ Totalview-ITCH and BX Totalview- ITCH data	\$5,000 per connection initial charge plus monthly charge per connection of \$12,000

		Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.
<u>Wireless Connection</u> for Third Party Data	<u>Wireless connection of NASDAQ</u> <u>Totalview Ultra (FPGA) and BX</u> <u>Totalview-ITCH data</u>	\$5,000 per connection initial charge plus monthly charge per connection of \$14,500 Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.
<u>Wireless Connection</u> for Third Party Data	Wireless connection of Toronto Stock Exchange (TSX)	\$5,000 per connection initial charge plus monthly charge per connection of \$8,500Fees are subject to a 30-day testing period, during which the monthly charge per connection is waived.
Wireless Connection for Third Party Data	Port for wireless connection	\$3,000 monthly charge per port, excluding first port
	<u>1Mb</u>	\$200 monthly charge
	<u>3Mb</u>	<u>\$400 monthly charge</u>
Virtual Control Circuit	<u>5Mb</u>	\$500 monthly charge
between two Users	<u>10Mb</u>	<u>\$800 monthly charge</u>
	<u>25Mb</u>	\$1,200 monthly charge
	<u>50Mb</u>	\$1,800 monthly charge
	<u>100Mb</u>	\$2,500 monthly charge
Hosting Fee		\$1,000 monthly charge per cabinet per Hosted Customer for each cabinet in which such Hosted Customer is hosted
	Furnish and install 1 cross connect	\$500 initial charge plus \$600 monthly charge

	Furnish and install bundle of 6 cross	\$500 initial charge plus
	connects	\$1,800 monthly charge
	Furnish and install bundle of 12 cross	\$500 initial charge plus
	connects	\$3,000 monthly charge
Data Center Fiber Cross	Furnish and install bundle of 18 cross	\$500 initial charge plus
Connect	connects	\$3,840 monthly charge
	Furnish and install bundle of 24 cross	\$500 initial charge plus
	<u>connects</u>	\$4,680 monthly charge
		See Colocation Note 2.
	Network Time Protocol Feed	\$300 initial charge plus \$100
	(Note: LCN only)	monthly charge
Connection to Time	Precision Time Protocol	\$1,000 initial charge plus
Protocol Feed	<u>Frecision Time Frotocor</u>	<u>\$250 monthly charge</u>
	GPS Time Source	\$3,000 initial charge plus
	(Note: dedicated cabinets only)	<u>\$400 monthly charge</u>
Expedite Fee	Expedited installation/completion of	\$4,000 per request
Expedite Fee	a User's co-location service	<u>\$4,000 per request</u>
	Change to a co-location service that	
Change Fee***	has already been installed/completed	<u>\$950 per request</u>
	for a User	
	Dedicated Cabinet: Includes initial	
	racking of equipment in cabinet and	<u>\$800 per dedicated cabinet</u>
Initial Install	provision of cables (4 hrs).	
Services***	Partial Cabinet: Includes initial	\$400 mon eight most unit in a
(Required per cabinet)	racking of equipment in cabinet and	<u>\$400 per eight-rack unit in a</u> partial cabinet
	provision of cables (2 hrs).	partial cabinet
	Allows Users to use on-site data	<u>\$100 per half hour</u>
	center personnel to maintain User	
Hot Hands Service***	equipment, support network	
	troubleshooting, rack and stack,	
	power recycling, and install and	
	document cable.	
	Receipt of one shipment of goods at	
Shipping and	data center from User/supplier.	<u>\$100 per shipment</u>
Receiving***	Includes coordination of shipping and	
	receiving.	
Badge Request***	Request for provision of a permanent	
	data center site access badge for a	<u>\$50 per badge</u>
	User representative.	
External Cabinet Cable	Engineer, furnish and install Rittal	\$400 per trav
<u>Tray***</u>	<u>5"H x 12"W cable tray on cabinet.</u>	<u>\$400 per tray</u>

Custom External Cabinet Cable Tray***	Engineer, furnish and install 4" H x 24" W custom basket cable tray above client's cabinet rows.	<u>\$100 per linear foot</u>
<u>Visitor Security</u> <u>Escort***</u>	All User representatives are required to be accompanied by a visitor security escort during visits to the data center, unless visiting the User's cage. Requirement includes User representatives who have a permanent data center site access badge.	<u>\$75 per visit</u>

\*\*\* These fees are waived for the move of a User's equipment within the Data Center when incurred in connection with such a move required by the Exchange ("Migration Move"). A User selected by the Exchange for a Migration Move will receive written notice (the "Notice"). The Notice will identify the 90-day period during which a User must move its equipment, which period would commence at least 60 days from the date of the Notice. Monthly recurring fees for the User's existing space based on the rate of the monthly recurring fees that the User was paying as of the date of the Notice are also waived for the month during which a User's Migration Move takes place, so the User would not incur these fees for the period of overlapping use of equipment and services in the old and new locations. In addition, the monthly recurring charges are waived for the month following the completion of a User's Migration Move, based on the rate of the monthly recurring fees that the User was paying as of the date of the month following the completion of a User's Migration Move, based on the rate of the monthly recurring fees that the User was paying as of the date of the Notice. No User will be required to move more than once within any 12-month period.

# <u>Co-Location: Connectivity to Third Party Systems, Data Feeds, Testing and Certification</u> <u>Feeds, and DTCC</u>

#### Connectivity to Third Party Systems

Pricing for access to the execution systems of third party markets and other service providers (Third Party Systems) is for connectivity only. Connectivity to Third Party Systems is subject to any technical provisioning requirements and authorization from the provider of the data feed. Connectivity to Third Party Systems is over the IP network. Any applicable fees are charged independently by the relevant third party content service provider. The Exchange is not the exclusive method to connect to Third Party Systems.

<u>Bandwidth of</u> <u>connection to Third</u> Party System	Monthly recurring fee per connection to Third Party System
1Mb	\$200
<u>3Mb</u>	<u>\$400</u>
<u>5Mb</u>	<u>\$500</u>

<u>10Mb</u>	<u>\$800</u>
<u>25Mb</u>	<u>\$1,200</u>
<u>50Mb</u>	<u>\$1,800</u>
<u>100Mb</u>	\$2,500
<u>200 Mb</u>	\$3,000
<u>1 Gb</u>	<u>\$3,500</u>

Third Party Systems
Americas Trading Group (ATG)
BM&F Bovespa
Boston Options Exchange (BOX)
Canadian Securities Exchange (CSE)
Cboe BYX Exchange (CboeBYX), Cboe
BZX Exchange (CboeBZX), Cboe EDGA
Exchange (CboeEDGA), and Cboe EDGX
Exchange (CboeEDGX)
Cboe Exchange (Cboe) and Cboe C2
Exchange (C2)
Chicago Mercantile Exchange (CME Group)
Credit Suisse
Euronext Optiq Cash and Derivatives
<u>Unicast (EUA)</u>
Euronext Optiq Cash and Derivatives
<u>Unicast (Production)</u>
Investors Exchange (IEX)
ITG TriAct Matchnow
MIAX Options
MIAX PEARL Options
Nasdaq
NASDAQ Canada (CXC, CXD, CX2)
NASDAQ ISE
Neo Aequitas
NYFIX Marketplace
<u>Omega</u>
OneChicago
OTC Markets Group
TMX Group

Connectivity to Third Party Data Feeds

Pricing for data feeds from third party markets and other content service providers (Third Party Data Feeds) is for connectivity only. Connectivity to Third Party Data Feeds is subject to any technical provisioning requirements and authorization from the provider of the data feed.

<u>Connectivity to Third Party Data Fees is over the IP network, with the exception that Users can</u> <u>connect to Global OTC over the IP network or LCN. Market data fees are charged independently</u> by the relevant third party market or content service provider. The Exchange is not the exclusive <u>method to connect to Third Party Data Feeds.</u>

Third Party Data Feed providers may charge redistribution fees. When the Exchange receives a redistribution fee, it passes through the charge to the User, without change to the fee. The fee is labeled as a pass-through of a redistribution fee on the User's invoice. The Exchange does not charge third party markets or content providers for connectivity to their own feeds.

	Monthly
	Recurring
	<b>Connectivity</b>
	Fee per Third
	Party Data
Third Party Data Feed	Feed
BM&F Bovespa	<u>\$3,000</u>
Boston Options Exchange (BOX)	<u>\$1,000</u>
Canadian Securities Exchange (CSE)	<u>\$1,000</u>
Cboe BZX Exchange (CboeBZX) and Cboe BYX	<u>\$2,000</u>
Exchange (CboeBYX)	
Cboe EDGX Exchange (CboeEDGX) and Cboe EDGA	<u>\$2,000</u>
Exchange (CboeEDGA)	
Cboe Exchange (Cboe) and Cboe C2 Exchange (C2)	<u>\$2,000</u>
<u>CME Group</u>	<u>\$3,000</u>
Euronext Optiq Compressed Cash	<u>\$900</u>
Euronext Optiq Compressed Derivatives	<u>\$600</u>
Euronext Optiq Shaped Cash	<u>\$1,200</u>
Euronext Optiq Shaped Derivatives	<u>\$900</u>
Financial Industry Regulatory Authority (FINRA)	<u>\$500</u>
<u>Global OTC</u>	<u>\$100</u>
<u>ICE Data Services Consolidated Feed ≤ 100 Mb</u>	<u>\$200</u>
<u>ICE Data Services Consolidated Feed &gt; 100 Mb to <math>\leq 1</math></u>	<u>\$500</u>
Gb	
ICE Data Services Consolidated Feed > 1 Gb	<u>\$1,000</u>
ICE Data Services Consolidated Feed Shared Farm <	<u>\$200</u>
<u>100Mb</u>	
ICE Data Services Consolidated Feed Shared Farm >	<u>\$500</u>
$100 \text{ Mb to} \le 1 \text{ Gb}$	
ICE Data Services Consolidated Feed Shared Farm >1	<u>\$1,000</u>
Gb	
ICE Data Services PRD	<u>\$200</u>

	Monthly Recurring
	Connectivity
	Fee per Third
	Party Data
Third Party Data Feed	Feed
ICE Data Services PRD CEP	\$400
Intercontinental Exchange (ICE)	\$1,500
Investors Exchange (IEX)	<u>\$1,000</u>
ITG TriAct Matchnow	<u>\$1,000</u>
Miami International Securities Exchange/MIAX	<u>\$2,000</u>
PEARL	
Montréal Exchange (MX)	<u>\$1,000</u>
MSCI 5 Mb	<u>\$500</u>
MSCI 25 Mb	<u>\$1,200</u>
NASDAQ Stock Market	<u>\$2,000</u>
NASDAQ OMX Global Index Data Service	<u>\$100</u>
NASDAQ UQDF & UTDF	<u>\$500</u>
NASDAQ Canada (CXC, CXD, CX2)	<u>\$1,500</u>
NASDAQ ISE	<u>\$1,000</u>
Neo Aequitas	<u>\$1,200</u>
Omega	<u>\$1,000</u>
OneChicago	<u>\$1,000</u>
OTC Markets Group	<u>\$1,000</u>
Vela – SuperFeed <500 Mb	<u>\$250</u>
Vela – SuperFeed >500 Mb to <1.25 Gb	<u>\$800</u>
Vela – SuperFeed >1.25 Gb	<u>\$1,000</u>
TMX Group	<u>\$2,500</u>

#### Connectivity to Third Party Testing and Certification Feeds

The Exchange provides connectivity to third party testing and certification feeds provided by third party markets and other content service providers. Pricing for third party testing and certification feeds is for connectivity only. Connectivity to third party testing and certification feeds is subject to any technical provisioning requirements and authorization from the provider of the data feed. Connectivity to third party testing and certification feeds is over the IP network. Any applicable fees are charged independently by the relevant third party market or content service provider. The Exchange is not the exclusive method to connect to third party testing and certification feeds.

Connectivity to third party certification and testing feeds	<u>\$100 monthly</u> recurring fee per
	feed

### Connectivity to DTCC

Pricing for connectivity to DTCC feeds is for connectivity only. Connectivity to DTCC feeds is subject to any technical provisioning requirements and authorization from DTCC. Connectivity to DTCC feeds is over the IP network. Any applicable fees are charged independently by DTCC. The Exchange is not the exclusive method to connect to DTCC feeds.

5 Mb connection to D	TCC	<u>\$500 monthly</u> recurring fee
50 Mb connection to 1	DTCC	<u>\$2,500 monthly</u> recurring fee

[A]<u>B</u>. Wireless Connectivity

\* \* \* \* \*

[B]C. Wireless Connectivity to Market Data

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