



June 3, 2011

David A. Stawick  
Secretary of the Commission  
Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21<sup>st</sup> Street, NW.  
Washington, DC 20581

Re: Core Principles and Other Requirements for Designated Contract Markets; Proposed Rule, 75 FR 80572 (Dec. 22, 2010) (RIN # 3038-AD09) (“DCM Core Principles Proposal”); Reopening and Extension of Comment Periods for Rulemakings Implementing the Dodd-Frank Wall Street Reform and Consumer Protection Act, 76 FR 25274 (May 4, 2011)—Specifically with respect to Proposed Rule §38.151(b) (Impartial Access By Members, Market Participants and Independent Software Vendors, in connection with fees for DCM provided Co-Location/Proximity Hosting Services)

Dear Mr. Stawick:

On behalf of Trading Technologies International, Inc. (“TT”), I am submitting this letter to comment on the Proposed Rule relating to Core Principles and Other Requirements of Designated Contract Markets, specifically with respect to proposed Rule §38.151(b), which addresses impartial access by members, market participants and independent software vendors to the services and markets offered by a designated contract market (“DCM”), including DCM fee structures.<sup>1</sup> More specifically, TT’s comments focus on the issue of fees charged by a DCM for co-location/proximity hosting services that it provides. TT believes that the Commodity Futures Trading Commission (“CFTC”) is correct to address the manner by which DCMs establish fees for access to their markets and services to assure they are consistent with “impartial access”. DCM Core Principles Proposal, 75 FR at 80579. TT also concurs with the policy objectives identified by the CFTC in an earlier rulemaking proposal specific to a DCM’s co-location and hosting services to assure that access is equitable and that “the fees charged to market participants and third-party proximity hosting services remain equitable and do not become an artificial barrier to

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<sup>1</sup> The relevant proposed rule is:

§ 38.151 Access requirements.

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(b) Impartial access by members, market participants and independent software vendors. A designated contract market must provide its members, market participants and independent software vendors with impartial access to its markets and services, including:

- (1) Access criteria that are impartial, transparent, and applied in a nondiscriminatory manner; and
- (2) Comparable fee structures for members, market participants and independent software vendors receiving equal access to, or services from, the designated contract market.

effective market access.”<sup>2</sup> However, current co-location offerings of at least two exchanges suggest that the proposed rule is not comprehensive enough to ensure that the pricing of DCM co-location services is “reasonably related to the cost of providing” such services, which the CFTC has identified as a necessary element for achieving those objectives. *Id.*

## **I. Background of TT**

TT is an independent software vendor that provides software trading solutions enabling TT’s customers to trade the world’s major electronic futures exchanges and other related marketplaces. TT also provides a fully managed service called TTNET, where TT hosts its customer’s electronic trading infrastructure and procures and oversees all data line connections between each TTNET facility, the relevant exchanges and TT’s customers’ facilities. TT’s customer base includes the largest banks, commercial firms, hedge funds, proprietary trading firms and professional traders throughout the world. TT currently has seven interconnected TTNET facilities in Chicago, New Jersey, London, Frankfurt, Tokyo, Singapore, and Sydney and is in the process of adding a TTNET facility in Sao Paulo. Each TTNET facility is either co-located or, where co-location is not offered, proximity hosted with the local exchange matching engine. TT’s view of the marketplace is based on its 10+ year history as a major consumer of co-location and proximity hosting services worldwide. Up until recently, these services had been provided only by third party service providers such as Equinix, Interxion, Level 3, AT&T and Verizon. These third party providers are still providing such services, but now the exchanges are moving into the co-location services business. TT has shared its objections regarding the costs of such exchange provided services with one DCM in the United States and another futures exchange in Europe.

## **II. Comments on the proposed rule**

### *A. Existing third party co-location facilities’ fees are determined by market competition*

TT’s concerns with the proposed rules relate to fees for exchange provided co-location facilities services. We note another comment letter that was sent on behalf of Equinix, Inc. by John Knuff, General Manager, Financial Service. Equinix is a third party co-location service provider that provides services worldwide and has been in the business for many years. Knuff’s comment letter rightly asserts “[w]e believe fees of independent data centers are market driven and need no regulation by CFTC”. TT often negotiates those fees with such companies and ultimately agrees that the fees in those situations are driven by a competitive market. Conversely, where an exchange controls not only the location of the matching engine but also the co-location services where the matching engine is located, a competitive market would seem to be in serious jeopardy and, thus, related fees would be vulnerable to unilateral dictates by an exchange. In other words, exchanges are not subject to the same competitive market as third party co-location providers because only the exchange can offer co-location with its own matching engine.

### *B. Traders seek technological advantages, but exchanges should continue to provide only “impartial access” (see, § 38.151 (b))*

Since the inception of electronic trading some market participants have gained an advantage over other participants by enhancing their technological capabilities. For example, some market participants have found an advantage by purchasing more and more powerful computers and servers, more efficient software and larger data lines to speed the transfer of data. As the CFTC noted in the supplementary information relating to the proposed rule, “...the continual evolution of technologies for generating and

<sup>2</sup> Co-Location/Proximity Hosting Services; Proposed Rule, 75 FR 33198, 33200 (June 11, 2010) (the “Co-Location Proposal”).

executing orders” has been “...a primary driver of...drastic changes in futures and option trading.” Co-Location Proposal, 75 FR at 33199. The CFTC further notes the importance of speed or latency on trades: “[m]any trading firms have trading strategies that are highly dependent upon speed in a number of areas: Speed of market data delivery from exchange servers to the firms’ servers; speed of processing of firms’ trading engines; speed of access to exchange servers by firms’ servers; and, speed of order execution and response by exchanges.” *Id.* Latency is measured down to the microsecond for some firms and a microsecond loss could mean orders are not filled and result in untold amounts of profit or loss. In an effort to cut microseconds, the technological advancements are supplemented by the physical location of trading firms’ trading systems. The closer a trading system is to an exchange matching engine, the less time is expended for market data, orders and order acknowledgements to travel between the trading system and the matching engine. Approximately 52 feet could save one microsecond. One hundred miles could save one millisecond, which is 1,000 microseconds. These are seemingly inconsequential distances and time periods in many industries, but as the CFTC recognizes, they mean the difference between profits and losses to trading firms.

Exchange participants, exchanges and ISVs like TT have all utilized third party co-location service providers for years. Exchange participants would house their trading infrastructure at the co-location facilities or retain a company like TT to host such infrastructure through service offerings like TTNET. TT would contract with the co-location facility service provider so that it could provide its TTNET services at the co-location facility. Exchanges would often house their matching engines at a data center where the co-location facility resides or within the co-location facility, thereby minimizing latency for trading participants whose infrastructure was also housed there. Alternatively, at least one exchange houses the matching engine in its own facility, with no co-location facilities available in the same building. This exchange placed a “point of presence” (“POP”) on a floor in a building that is commonly used as a co-location facility. Trading groups and vendors that co-locate their equipment in the same building as the POP are able to purchase a cross connect data line from their infrastructure to the POP and have the fastest access to the matching engine with the lowest available latency. In either situation no trading participant could have faster access than any other and the co-location fees were charged by the third party co-location provider who had plenty of competition in the marketplace. This was consistent with the CFTC’s goals under the present proposed rules since access was made available at competitive fees. As the comments to the proposed rules state, “[t]he purpose of the proposed impartial access requirements is to prevent DCMs from using discriminatory access requirements as a competitive tool against certain participants.” DCM Core Principles Proposal, 75 FR at 80579. While trading participants still found technological advantages by maximizing robust and efficient equipment, software and data lines, exchanges remained neutral technology venues where all comers could have orders matched in an equitable manner.

In stark contrast to the aforementioned approach, exchanges that offer co-location services have proposed fee structures that create at least two tiers of hosting and connectivity at vastly different prices, which results in an unlevel playing field.

- C. The final rules should explicitly tie fees charged to reasonable costs incurred, as the CFTC’s comments suggest, to address the actual fees currently proposed by exchanges offering co-location services.*

It is apparent that exchanges are not basing their fee structure primarily on cost, but rather what the market will bear to co-locate with an exchange matching engine where only the exchange controls the matching engine and the facility in which it is housed. TT has compiled data of current costs associated with housing TT’s network equipment in third party co-location facilities either co-locating with exchange matching engines or, where not available, proximity hosting near the exchange matching

engine. The difference in pricing between the third party co-location providers and the exchange co-location providers is striking and alarming. The exchanges are charging more than double what the third party providers charge and cost does not justify the disparity. In fact, it seems to TT that an exchange, hosting its own co-location facility, could reap savings from the economies of scale derived from becoming a major consumer of power, cooling and data lines that its co-location facility would require. Also, depending on the location of the facility, real estate costs could be significantly less than comparable third party co-location facilities (e.g., real estate in Aurora, a suburb of Chicago, is significantly less expensive than real estate within Chicago). These decreased costs should actually result in lower fees for customers of the exchange co-location facilities, but at a minimum they do not justify increased fees (especially not double the fees).

TT believes some customers' willingness to pay the high price tag for the "premier" hosting and "high end" connectivity has more to do with them wanting to take advantage of an unlevel playing field than any "value-added" services. While some users and firms can afford to pay the hefty price for the "premium" services, the users and firms using the "regular," more accessible services are blocked from entering the market. TT estimates that the vast majority of market makers install their trading strategy algorithms on servers, which have to be housed close to the matching engine to take advantage of microsecond speed differences. While new market makers that are just ramping up their trading operations may have to pay higher exchange transaction fees based on relatively lower volumes traded, their overall exchange transaction fees remain bearable because their total number of trades is relatively low. In contrast, the exchanges are blocking the entrance for new market makers when they charge co-location fees with no correlation to cost. This does not seem like a pricing scheme that provides "equal access" to the exchange and violates what the CFTC explicitly sought: "[to] ensure that fees are not used as a means to deny access to some market participants by 'pricing them out of the market.'" Co-Location Proposal, 75 FR at 33200. While these newer market makers in theory could utilize third party co-location facilities or host their own infrastructure to access the exchange matching engine, trades originating from those locations would be so slow that they would be ineffective. If the exchange operated co-location price was reasonable and more reasonably related to the costs, as they are with third party operated co-location services, it seems that all trading participants would choose the best, lowest latency access.

The CFTC's comments to the proposed rule address the relationship between reasonable costs and fees charged for services:

"A DCM can satisfy the requirement that membership and participants' criteria are impartial, transparent, and non-discriminatory by establishing clear and impartial guidelines and procedures on its Web site. Such requirements may establish different categories of market participants, but may not discriminate within a particular category. Fee structures may differ among categories if such fee structures are reasonably related to the cost of providing access or services to a particular category. For example, if a certain category requires greater information technology or administrative expenses on the part of the DCM, then a DCM may recoup those costs in establishing fees for that category of member or market participant" DCM Core Principles Proposal, 75 FR at 80579 (emphasis added).

Core Principle 19 is also relevant to this issue because, unlike the fees charged by third party co-location providers, when an exchange becomes a co-location provider, there is no market competition. Core Principle 19 prohibits exchange actions that amount to restraints on trade or otherwise impose any material anticompetitive burden on the market without a regulatory justification.<sup>3</sup> Exorbitant fees for co-location services that are not reasonably related to cost would tend to restrict access and restrain

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<sup>3</sup> Core Principle 19 prohibits a DCM such conduct by a DCM "Unless necessary or appropriate to achieve the purposes of" the CEA.



trade or otherwise burden the market because not all participants can afford such fees. Those market participants would be excluded from the market or reduce their technology footprint at the co-location facility, thereby diminishing their market presence.

TT's analysis of four of the world's largest exchanges reveals the numbers set forth in the table below comparing (i) actual negotiated fees available to TT by the current exchange co-location or proximity offerings using third party co-location providers (Exchanges 1 through 4 "co-lo hosting, operated by 3<sup>rd</sup> party") with (ii) the proposed fees for two exchange operated co-location facilities ("Exchange 3" and "Exchange 4" "co-lo hosting, operated by exchange"). These proposed exchanges fees are not negotiable because the exchanges are trying to be transparent in their pricing for all customers, which is laudable, but it also highlights a difference between the competitive third party co-location service provider market and the exchange co-location market—the third party providers' list prices are negotiable in part because their competitors bid for the same business and negotiation is necessary to compete. Not all of the exchanges in the table below fall within the jurisdiction of the CFTC, but the current and proposed fees are nonetheless relevant to show the pricing trend. For comparison the table below shows the recurring co-location cost for each exchange for the same amount of usable power (in kilowatts) with sufficient secure space and cooling made available. The number of cabinets used varies because different datacenter designs allow for different amounts of kilowatts to be available in each cabinet, but the total number of available kilowatts in each scenario is almost identical. In the case of Exchange 4, restrictions exist on the minimum amount of power one must purchase in order to secure their hosting space with a private cage. Additional implied restrictions exist in that one must purchase a certain type of server to be able to utilize the power configuration efficiently and if one does not wish to incur the cost of procuring this type of server, they're still charged for the unusable portion of power. While the chosen amount of power is representative of TT's current needs and different requisite amounts of power by different customers will result in somewhat different comparative analysis, the below clearly shows a significant disparity in pricing between exchange operated co-location or proximity offerings and those operated by a third party.

<b>Costs for 46kw of usable power with sufficient space, cooling, and cabinets in a private cage (normalized to USD currency)</b>	Exchange 1 (Co-lo hosting, operated by 3 <sup>rd</sup> party)	Exchange 2 (Co-lo hosting, operated by 3 <sup>rd</sup> party)	Exchange 3 (Proximity hosting, operated by 3 <sup>rd</sup> party)	Exchange 3 (Co-lo hosting, operated by exchange)*	Exchange 4 (Proximity hosting, operated by 3 <sup>rd</sup> party)	Exchange 4 (Co-lo hosting, operated by exchange)* *	Exchange 4 (Co-lo hosting, operated by exchange)* **
Available lowest cost cabinet configuration to deliver requisite power	11.5 x 4kw	11.5 x 4kw	9.25 x 5kw	3 x 4kw + 4 x 9kw	11.5 x 4kw	7 x 8.5kw	3 x 8.5kw + 2 x 17kw (12kw usable)
Monthly recurring charges (MRC)	\$25,300.00	\$28,013.78	\$31,270.99	\$88,987.92	\$25,300.00	\$59,500.00	\$47,500.00
<b>Annual total</b>	<b>\$303,600.00</b>	<b>\$336,165.35</b>	<b>\$375,251.89</b>	<b>\$1,067,855.04</b>	<b>\$303,600.00</b>	<b>\$714,000.00</b>	<b>\$570,000.00</b>

#### Notes

- \* Maximum 4 cabinets per secure private cage enclosure
- \*\* Minimum 7 cabinets required to have the cabinets securely enclosed in a private cage
- \*\*\* A more desirable configuration, should the exchange relax the constraint of minimum 7 cabinets

TT understands that some exchanges may offer additional components and/or services (e.g., basic Remote Hands, higher levels of physical security, more robust back-up power capabilities, etc.) as part of co-location or proximity hosting services. However, TT believes that these factors have only an incremental effect on the overall cost to the provider and the subsequent monthly recurring charges for hosting and connectivity related products and services. Without stronger language in the proposed rule to ensure that the fees charged by the exchanges are reasonably related to the costs incurred, fees like those proposed by the exchanges that are more than double the market rate are likely to continue.

In addition, as indicated in the table above, when comparing the proposed exchange provided co-location fees only with other exchange's proposals, they may seem reasonable. But, such a comparison is unfair since each exchange enjoys an exclusive offering of co-location with its matching engine. Increased fees based on reasonable costs incurred makes sense, but increased fees based on co-location with the matching engine ought to violate the proposed rule and Core Principle 19.

### **III. Alternative language for Rule**

Based on TT's assessment of the intention of the CFTC as well as the fees that are actually being demanded by exchanges for co-location services, TT suggests that the rule's language specifically require that the fees be directly related to the reasonable costs of operating and providing co-location services and that they be priced competitively compared with the actual negotiated rates of the broader non-DCM owned or operated co-location service provider market.

Thank you for your consideration. I and others at TT would welcome an opportunity to meet with you to discuss these issues in the near future. If you have any comments or questions, please contact me at my direct phone number of (312) 476-1081 or via e-mail at [mike.ryan@tradingtechnologies.com](mailto:mike.ryan@tradingtechnologies.com).

Regards,



Michael G. Ryan  
Executive Vice President and General Counsel  
Trading Technologies International, Inc.