CoreOne Technologies
Technology Enabled Solutions

VIA EMAIL: rule-comments@sec.gov

Ms. Elizabeth M. Murphy
Secretary
Securities and Exchange Commission
100 F Street NE
Washington, DC 20549-1090

Re: File No. 4-657: Notice of Filing of Proposed National Market System Plan to Implement a Tick Size Pilot Program on a One-Year Pilot Basis

Dear Ms. Murphy:

CoreOne Technologies LLC ("CoreOne") appreciates the opportunity to provide the Securities and Exchange Commission (the "Commission") with comments on the Proposed National Market System Plan to Implement a Tick Size Pilot Program (the "Pilot"),[1] which the Commission directed the SROs to jointly develop and file pursuant to the Order Directing the Exchanges and the Financial Industry Regulatory Authority to Submit a Tick Size Pilot Plan (the "Order").[2]

CoreOne, through its VistaOne Regulatory Services division, is a leading provider of compliance, analysis, reporting and publication of regulatory and best-execution data, for broker-dealers, Alternative Trading Systems and stock exchanges. We believe that our experience in collecting, analyzing and publishing execution statistics, combined with our experience in managing technology solutions gives us a unique perspective on the goals, metrics and implementation risks of the proposed Pilot.

The stated goal of the Pilot is to "assist the Commission, market participants, and the public in studying and assessing the impact of increment conventions on the liquidity and trading of stocks of small capitalization companies."[3] Despite this goal, which clearly articulates the intent to analyze the potential benefits of breaking from "one size fits all" tick sizes, there appears to be confusion regarding the objective of the Pilot. The confusion may have been generated by the broad discussion in the Order of the background of decimalization and the Commission's preliminary belief that the Pilot should produce measurable data to allow the Commission and others to conduct studies of the effect of tick size on liquidity, execution quality for investors, volatility, market maker

[1] Securities Exchange Act Release No. 73511, 79 FR 66423 (November 7, 2014) (the "Pilot Plan").
[2] Securities Exchange Act Release No. 72460, 79 FR 36840 (June 30, 2014) (the "Pilot Order").
[3] See Pilot Plan at 66423.

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profitability, competition, transparency and institutional ownership.[4] Some have focused on the reference to studies of market maker profitability and argued that we should widen SPREADS in order to increase profits at market makers. Their premise is that market makers will profit more and the result will be that more research coverage and stock promotion will occur.[5] While not our area of expertise, this notion seems unlikely due to the lack of research analysts at the most active market makers. It is also going to be very hard to measure the impact on research coverage from market maker profitability as it is, at best, a loose correlation that will take a relatively long time to manifest, if at all.[6]

We believe, however, that the Pilot should adhere as closely as possible the stated goal of assessing the impact of increment conventions on the liquidity and trading of stocks. We would propose a focus on the production of meaningful, measurable metrics of liquidity of the effect of varying tick sizes relative to the average displayed spread (without widening spreads necessarily). The Pilot should test the hypothesis that tick sizes that are a larger percentage of the displayed spread will promote liquidity directly by increasing the incentives to quote. If effective spreads decrease and liquidity increases in the test group(s), then that would essentially prove this hypothesis true: widening tick sizes in situations where the tick size becomes a larger percentage of the quoted spread, but not larger than the previous spread, would increase liquidity and decrease trading costs for all investors. The Commission and the SROs seem to assume this hypothesis when explaining the criteria for Pilot securities: "the above criteria will result in the selection of those stocks that are most likely to benefit from a larger tick size because such stocks will tend to have higher average effective spreads."[7]

Determining which goal the Pilot is looking to achieve and how it can produce meaningful, measurable data has very clear implications for the design of the Pilot itself. If the goal is to simply widen spreads, then market maker profitability metrics and analyst coverage metrics both would be necessary to measure directly. As mentioned above, however, it remains unclear if the Pilot could generate meaningful data in this respect given the Pilot's length among other things. If,

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[4] See Pilot Order at 36843.

[5] See Id. at 36842 ("In the view of the Small Company Advisory Committee, the economic incentives provided by wider tick sizes would encourage market making and research analyst coverage, and thereby enhance the attractiveness of the IPO market for small companies and their ability to raise capital.").

[6] See Letter from Congressman Sean P. Duffy, to Mary Jo White, Chairman, Commission, dated November 17, 2014 at 2 (referring to the longer time period required to change market maker behavior and provide sufficient data). See also Letter from Larry Tabb, Founder & CEO, TABB Group, to Elizabeth M. Murphy, Secretary, Commission, dated December 10, 2014 at 1-2.

[7] Pilot Plan at 66424. See also Pilot Order at 36844 and fn. 51 (referring to Commission staff examination of effective spreads to evaluate market capitalization and average daily trading volume thresholds of NMS stocks.).

however, the Commission ultimately agrees that the goal should be to analyze potential trading improvements by better relating tick size to the average quoted spread, then the Pilot universe should be redesigned and the metrics clarified.

CoreOne proposes a re-design of the Pilot universe. At the currently proposed 5 cent tick size, we believe the Pilot universe should cover only small cap securities for which the average displayed spread is greater than 5 cents. In order to control the complexity of the process, we would suggest using the average displayed spread for the 6 months prior to the commencement of the Pilot "measurement period" for identifying the stocks in each group and then keeping the lists static for the duration of the Pilot. If there is scope to consider different tick sizes, we propose adding two more tick sizes for study: a 2 cent tick size (with the Pilot universe covering only small cap securities for which the average displayed spread is greater than 2 cents); and a 10 cent tick size (with the Pilot universe covering only small cap securities for which the average displayed spread is greater than 20 cents). This approach has two important benefits. First, it would allow the Commission and others to measure the effect on liquidity and displayed size directly without necessarily increasing trading costs to (mostly retail) investors whose trading costs are directly related to the spread.[8] Second, it would allow the Commission and others to shift focus to metrics that are clearly defined and regularly used by market participants today -- such as the effective spread for executed orders, the average liquidity displayed, and the actual volume traded relative to the market capitalization of the security -- instead of trying to assess market maker profitability and other hard-to-quantify statistics.[9]

To illustrate these points, consider the following simple scenarios:

Scenario 1A:

Stock 1 pre Pilot:

- Price = $30.00 bid $30.02 ask
- Order to buy 500 shares executed at $30.018

[8] See SEC Investor Advisory Committee, "Recommendation of the Investor Advisory Committee Decimalization and Tick Sizes" (January 31, 2014), p. 6. Available at: http://www.sec.gov/spotlight/investor-advisory-committee-2012/investment-adviser-decimilization-recommendation.pdf.

[9] Our approach would also mitigate the Commission's concern about transaction costs for tick sizes larger than five cents, and the issue of Pilot securities with spreads that are less than five cents. See Pilot Order at 36845 n. 56, and at 36845 ("Relative to the alternative minimum quoting increments that could be considered, the Commission preliminarily believes $0.05 provides a good balance between measuring assuring the ability to measure the hypothesized effect, if it exists, and mitigating any potential harm to liquidity as a result of a tick size that is too large.").

- The Effective Spread is 1.6 cents, while the Quoted Spread is 2 cents for an Effective/Quoted (E/Q) of 80

Stock 1 in Pilot:

- Price = $30.00 bid $30.05 ask
- Order to buy 500 shares executed at $30.04
- The Effective Spread is 3 cents while the Quoted Spread is 5 cents for an E/Q of 60[10]

Note how the effective spread for Stock 1 is 87.5% higher in the Pilot than the Pre-pilot execution despite the E/Q being 25% lower.

Scenario 1B: (pre Pilot same)

Stock 1 in Pilot:

- Price = $30.00 bid $30.05 ask
- Order to buy 500 shares executed at $30.025 (midpoint)
- The Effective Spread is 0, while the Quoted Spread is 5 cents for an E/Q of 0

[10] Estimates are based on October 2014 605 public data compiled by VistaOne Regulatory Services: Stocks trading less than 1 million shares per day for all sizes averaged an E/Q of 80 (rounded up), while stocks trading over 1 million shares per day received an E/Q of 60 (rounded down). We believe it is reasonable to expect that such improvement in the Pilot universe is at the upper bound of possible outcomes. The data used for this is here:

605 Summary Report **Oct-14**

Size Category	Market Center Name	Symbol/Group	Quoted Spread ¢	Effective Spread ¢	Effective / Quoted %	Covered Shares
All 1-5 Sizes	All Mkt Ctrs	TradeVol 1M+	2.15	1.37	63.62	11,338,258,766
All 1-5 Sizes	All Mkt Ctrs	TradeVol 500K-1M	3.76	2.77	73.76	1,613,516,219
All 1-5 Sizes	All Mkt Ctrs	TradeVol 50K-200K	4.92	3.76	76.49	1,379,424,945
All 1-5 Sizes	All Mkt Ctrs	TradeVol 0-49999	10.1	8.01	79.28	476,968,215

Note how even a midpoint execution for an E/Q of 0 is actually more expensive for the investor by 38.9% based on the actual distance from the prevailing bid. Only a NEGATIVE E/Q would be sufficient to overcome the increase in spread for the investor.

Scenario 1C: (pre Pilot same)

Stock 1 in CoreOne proposed Pilot with tick size of 2 cents:

- Price = $30.00 bid $30.02 ask
- Order to buy 500 shares executed at $30.016
- The Effective Spread is 1.2 cents, while the Quoted Spread is 2 cents for an E/Q of 60

Note how a potential liquidity increase with a 2 cent tick could result in an actual net improvement in actual trading costs because it would not be overwhelmed by the effect of increasing the Quoted Spread. While not guaranteed, this result is likely if the hypothesis being tested is proven true.

Scenario 2A:

Stock 2 pre Pilot:

- Price = $750.21 bid $750.61 ask

Note how the tick size is 1/40th of the Quoted Spread – it is, therefore, very inexpensive for small orders to improve upon the resting quotes. Many have suggested that this is a cause for illiquidity and difficulty in making markets in small cap stocks.[11]

Stock 2 in Pilot:

- Price = $750.20 bid $750.60 ask

[11] See Letter from David Weisberger, Executive Principal, Two Sigma Securities, LLC to Elizabeth M. Murphy, Secretary, Commission, dated April 23, 2013 at 1 (undertaking a statistical analysis and illustrating that percentage of market capitalization traded decreases as the average spread in number of ticks increases.). See also Submission for the Purpose of the US Securities and Exchange Commission's Roundtable on Tick Sizes (5 February 2013), from Autorité des marches financiers, dated January 2013 at 4 (stating that the optimal tick size should be a function of the average spread and should be large enough to constrain the spread and at the same time small enough to keep transaction costs unaffected).

Note how the tick size is 1/8thth of the Quoted Spread – it is more expensive, but not too expensive, for small orders to improve upon the resting quotes since there are 11 price levels between the bid and the offer.

Scenario 2B: (pre Pilot same)

Stock 2 with CoreOne proposed Pilot tick size of 10 cents:

- Price = $750.20 bid $750.60 ask

Note how the proposed tick size is 1/4thth of the Quoted Spread – it is more than twice as expensive for small orders to improve upon the resting quotes and with a 10 cent tick size there are only 3 price levels between the bid and the ask.

In addition to the proposed re-design of the Pilot universe, CoreOne further suggests a simplification in the data collection strategy. We believe that the easiest way to measure the impact on trading costs and liquidity of the Pilot is to leverage the existing infrastructure for Rule 605: it is already in place at most firms; it measures effective, quoted and realized spreads, fill rates, and price improvement; and captures the most important execution information. Firms that generate these statistics have access to all relevant liquidity information and have experience in generating statistical analysis defined by order size and stock groups. In addition, analysis is published with sufficient delay to alleviate concerns of information leakage that many market participants are wary of. Thus, for the Pilot universe, we propose that the Commission remove all exemptions from Rule 605 reporting that derive from parent order instructions and ensure that all unconstrained[12] market and limit orders routed to market centers for execution are reportable. This would create a relatively complete dataset for study. This dataset would enable analysis that would capture all market, marketable limit, and non-marketable limit orders sent to exchanges, ATSs, broker-dealer internalization systems, and market makers. Since institutional, proprietary trading and algorithmic orders would be added to the current 605 universe that is focused on retail orders, it would allow independent analysis of key trading characteristics. If the Commission went one step further and also removed from the Pilot universe exemptions for all non-displayed, pegged

[12] We recommend including in the Pilot orders such as not held orders and oversized orders. Orders that are excluded from Rule 605 because a customer requested special handling for execution, such stop orders, All or None (AON), Fill or Kill (FOK), or similar types of orders would remain excluded to ensure their presence would not corrupt the data generated by the Pilot.

and liquidity seeking orders sent to dark pools, the result would be a relatively complete dataset for analysis. This approach would be far less expensive to implement than the currently contemplated framework and would be capable of generating the key metrics required to test the hypothesis and achieve the goal of the Pilot.

Finally, CoreOne would like to stress that the Pilot should also be as cost-effective and statistically valid as possible. We must note that we have significant concerns that the technological complexity of including a test group with the trade-at provision run counter to both of these laudable guidelines. Despite significant controversy over this provision, there is one point of relative consensus: the implementation of trade-at is a significant undertaking. It will require changes to many systems at exchanges, alternative trading systems, and broker dealers and will create situations that have never been tested. For example, to our knowledge, no exchange has ever offered order types that function differently for different securities or are unavailable for certain securities. As currently proposed, the trade-at provision would introduce such variations. We believe that this will increase implementation costs, and, more importantly, delay the Pilot considerably. Additionally, an unintended consequence is that a number of market participants will elect to trade using third parties or not trade at all in this test group in order to avoid the cost of implementation. That behavior would potentially compromise the validity of the results and cast doubt on whether the results could be extrapolated to a broader based, final rule.

CoreOne thanks the Commission for the opportunity to provide comments on the Pilot. We hope our comments are helpful. We would welcome the opportunity to discuss this further, as well as technology or market structure matters generally, if the Commission has questions or would like additional information. Please do not hesitate to contact Dave Weisberger at [redacted] or Rob Flatley at [redacted].

Respectfully submitted,

Rob Flatley
CEO

Dave Weisberger
MD, Head of Market Structure Analysis