CoreOne Technologies
Technology Enabled Solutions

July 8, 2013

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. S7-01-13: Proposed Regulation Systems, Compliance and Integrity

Dear Ms. Murphy:

CoreOne Technologies LLC ("CoreOne") appreciates the opportunity to provide the Securities and Exchange Commission (the "Commission") with comments on proposed Regulation Systems, Compliance and Integrity ("Reg SCI").

CoreOne is a global leading provider of financial data creation, aggregation, management and distribution services and solutions used in front, middle and back office by asset managers, hedge funds, wealth managers, prime brokers, fund administrators, investment banks and insurers. We believe CoreOne's experience in designing, developing, testing, implementing and maintaining technology solutions for data, and in particular, end-to-end technology and services platforms, gives us a unique perspective on the systems and technology matters that Reg SCI seeks to address.

Reg SCI is intended to further the goals of the national market system and reinforce obligations under the U.S. Securities Exchange Act of 1934 to require entities important to the functioning of the U.S. securities markets to carefully design, develop, test, maintain and surveil systems integral to their operations. Reg SCI would cover "SCI Entities," "SCI Systems" and "SCI Security Systems." [1] Specifically, Reg SCI would require an SCI Entity to, among other things, conduct a review at least annually of its systems and mandate that certain of its members participate in scheduled testing of the SCI Entity's business continuity and disaster recovery plans ("BC-DR Plans"), including back-up systems, and coordinate testing on an industry-wide basis with other SCI Entities. [2]

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[1] Securities Exchange Act Release No. 69077 (March 8, 2013), 78 FR 18084, 18092 (March 25, 2013).
[2] See id. at 18123 and 18125 – 18126.

The broad principles of Reg SCI are welcome. The U.S. securities markets are highly fragmented and almost completely automated. It makes sense to have coordinated testing of the interconnectedness of systems (including test systems and backup systems) relevant to the full life cycle of a securities transaction. By superseding the existing voluntary Automated Review Policy ("ARP") and establishing a regulatory framework around systems that impact securities transactions, we believe Reg SCI will improve investor confidence in the integrity of U.S. securities markets. Reg SCI will show that market participants are thinking seriously about systemic risk internally and cooperating to mitigate this risk on a market-wide basis. Reg SCI will also ensure that myriad different systems relevant to securities transactions internally at SCI Entities, which are often managed separately at business unit level, will be reported directly to senior management for holistic, rather than fractionalized, review.

We understand that SCI Entities and others may have practical concerns with many details of Reg SCI. In particular, it is not possible to conceive of every scenario that could result in another May 6, 2010 "Flash Crash." Dramatic, short term declines in the price of single securities occur with regular frequency – estimated at more than 10 a day.[3] A high profile example occurred on January 25, 2013, when Apple's stock lost close to 2% of its value within the last minutes of the trading day, and although it recovered almost half its losses before the close, at its peak Apple's losses were close to $ 7 billion.[4] Another high profile example occurred on April 22, 2012, when Google's stock lost more than 3% of its value within the first minutes of the trading day, and although it recovered almost all of its losses within a second, the drop in price involved over 300 trades on 10 different exchanges and dark pools.[5] In both of these examples, stock exchange circuit breaker rules were not triggered because the drop in volume did not exceed circuit breaker thresholds, and the Commission's Limit Up Limit Down Rule, which was approved on a pilot basis on May 31, 2012, would not have been triggered either because the drop in volume did not exceed price bands and because the Limit Up Limit Down Rule currently is not effective during the first 15 minutes and last 30 minutes of the trading day.[6]

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[3] See Maureen Farrell, "Mini Flash Crashes: Nearly a Dozen a Day," CNN Money, March 20, 2013.

[4] See id.

[5] See Steven Russolillo, "Google Suffers 'Mini Flash Crash,' Then Recovers," The Wall Street Journal Markets & Finance, April 22, 2013.

[6] See Securities Exchange Act Release No. 64547 (May 25, 2011), 76 FR 31647 (June 1, 2011) ("LULD") and Securities Exchange Act Release No. 67091 (May 31, 2012), 77 FR 33498 (June 6, 2012) ("LULD Pilot"). During Phase I of the LULD Pilot, price bands would be calculated and disseminated 15 minutes after the start of regular

It is difficult to predict when any one of these significant but contained declines could trigger industry-wide consequences. As a result, regular and robust testing internally as well as on a market-wide basis of relevant systems, direct reporting to senior management, disclosures to the Commission and SCI Entity members and participants, and well-drafted and carefully-implemented policies and procedures will likely not prevent another incident having market-wide ramifications like the May 6, 2010 "Flash Crash."

Our focus in providing comments on Reg SCI is to make suggestions that may assist with formulating a testing plan that is feasible, achievable and would be reasonably expected to mitigate risk that can realistically be mitigated.

1. Establish an Effective Testing Environment.

We respectfully suggest that a comprehensive testing environment be developed in order to ensure the industry-wide testing that Reg SCI contemplates will be effective. The SCI Entities, in cooperation with the Commission and other relevant third parties, should think about how to establish a dedicated environment where end-to-end testing of pre-trade systems, OMS, order execution systems, algorithmic trading technology, EMS, SORs and other order routing systems, settlement, cancels and errors, post-trade systems, market data and any other system relevant to effecting securities transactions can be done safely and can accurately simulate the trading environment. The dedicated testing environment could have its own set of policies, procedures and protocols, especially at the conclusion of testing and migration to the trading environment. Such a dedicated environment could provide extra security and checks of the kind that might have prevented the initial mistake of improperly installing software during a testing phase that eventually resulted in the loss of over $400 million by Knight Capital Group in just 45 minutes on August 1, 2012. [7]

2. Implement Risk Based Testing Plans and Scenarios.

In order to mitigate the most likely risk impacting securities systems, it might be useful for testing plans to concentrate on high volume periods. For example, the

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trading hours and no price bands would be calculated and disseminated less than 30 minutes before the end of regular trading hours. See id at 33501. Only in Phase II of the LULD Pilot will price bands apply starting at 9:30 am and ending at 4:00 pm each trading day. See id.

[7] See Nina Mehta and Whitney Kisling, "Knight Says Loss May Spur Curbs on 'Knuckleheads' Errors," Bloomberg BusinessWeek, September 11, 2012.

highest level of activity in U.S. securities markets generally occurs at the open and close of markets. High volume is often seen during highly subscribed IPOs and reporting of large basket trades too. Having testing scenarios replicate these market conditions might be most effective in mitigating identifiable risk.

In addition to focusing on high volume periods, it may also be useful to stress test common order types such as market orders, limit orders, good-til-cancel orders and cancels/errors and how they would behave under different conditions. We also respectfully suggest that testing focus on mid-cap and small-cap stocks that generally experience low liquidity and ETFs that bundle less liquid stocks, as well as other securities under low liquidity scenarios. One of the key lessons in the "Findings Regarding the Market Events of May 6, 2010" ("Flash Crash Report"), which focused on the E-Mini S&P500 futures contracts that typically experience high volume of trading, is that "especially in times of significant volatility, high trading volume is not necessarily a reliable indicator of market liquidity."[8]

Furthermore, in recognizing that dramatic declines in securities prices can commonly happen, and more consequential industry-wide declines of the type experienced in the May 6, 2010 "Flash Crash" will inevitably happen despite the best intentions to prevent them, it may be useful to focus testing at least as much on the ability to recover from these events compared to prevention. For example, during the May 6, 2010 "Flash Crash," market participants reacted by halting trading, the Chicago Mercantile Exchange ("CME") circuit breaker triggered a halt in trading in the E-Mini, and the exchanges and FINRA broke certain trades.[9] Each of these actions is designed to aid in recovery, but, under the unique market conditions of May 6, 2010, these actions seemed to have the opposite effect.[10]

With regard to recovery, we also respectfully suggest that the Commission consider establishing different or more stringent testing and compliance standards for certain SCI Entities who operate essentially as monopolies. Many equity marketplaces exist where orders can be routed, and many ATSs exist to which orders are not required to be routed, so their inability to recover promptly from SCI Events may not result in significant negative impact on the integrity of the securities markets or protection of investors and their orders. However, the inability of other SCI Entities such as plan processors, clearing organizations and others that operate essentially as monopolies or control single-listed products to recover promptly from SCI Events might have greater systemic risk impact. For example, the Chicago

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[8] Findings Regarding The Market Events of May 6, 2010 Report of the Staffs of the CFTC and SEC to the Joint Advisory Committee on Emerging Regulatory Issues, September 30, 2010 at pg 6.
[9] See id.
[10] See id at pgs 6 - 7.

Board Options Exchange ("CBOE") has exclusive rights to trade options based on the S&P 500 Index ("SPX") and the CBOE's Volatility Index ("VIX"), so when it experienced a 3-hour shut down on April 25, 2013 because of a software glitch, these securities could not be traded at all. [11]

3. Coordinate Reg SCI with Similar Rules for Derivatives Markets.

On June 4, 2013, the Commodities Futures and Trading Commission ("CFTC") published in the Federal Register its final rules governing the registration, operation and compliance requirements of swap execution facilities (the "SEF Rules").[12] Title VII of the Dodd-Frank Act[13] amended the Commodities Exchange Act to establish a comprehensive regulatory framework for swaps and securities-based swaps[14] including, among other things, requiring the trading of swaps on SEFs and Designated Contract Markets ("DCMs").[15] SEFs, therefore, serve an equivalent function to SCI Entities in that they are marketplaces where executions of transactions take place. Section 37.1400 of the SEF Rules includes requirements that SEFs establish system safeguards. While we recognize that swaps are not identical to securities, we believe comparing these provisions of the SEF Rules to Reg SCI is informative. Specifically, SEF Rules:

(a) Require SEFs to establish and maintain a program of risk analysis and oversight to identify and minimize sources of operational risk through the development of appropriate controls and procedures and the development of automated systems that are reliable, secure and have adequate scalable capacity.

(b) Require SEFs to establish and maintain emergency procedures, backup facilities and a plan for disaster recovery that allows for the timely recovery and resumption of operations and the fulfillment of responsibilities and obligations of the SEFs and periodically conduct tests to verify that backup

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[11] See Nikolaj Gammeltoft, "CBOE Preaches to Vegas Choir as 'Glitch' Crashes Exchange," Bloomberg, April 26, 2013, and "CBOE Identifies Software Glitch that Halted Trading," Chicago Tribune Business, April 26, 2013. Traders resorted to hedging S&P 500 positions with the SPDR S&P 500 Trust ("SPY"), which may or may not be a sufficient alternative to the SPX and VIX.

[12] 78 FR 33476 (June 4, 2013).

[13] The Dodd-Frank Wall Street Reform and Consumer Protection Act, Public Law 111-203, 124 Stat. 1376 (2010) (the "Dodd-Frank Act").

[14] The rules regarding Securities-Based Swap Execution Facilities are still in the proposing phase with the Commission. See 76 FR 10948 (February 28, 2011).

[15] Section 733 of the Dodd-Frank Act.

resources are sufficient to ensure continued order processing and trade matching, price reporting, market surveillance and maintenance of a comprehensive and accurate audit trail.

(c) Require SEFs to establish a program of risk analysis and oversight that addresses information security, BC-DR planning and resources, capacity and performance planning, systems operations and quality assurance, and physical security and environmental controls.

(d) Suggest SEFs follow generally accepted standard and best practices when addressing categories of risk analysis and oversight.

(e) Require SEFs to maintain a BC-DR plan, BC-DR resources, emergency procedures and backup facilities sufficient to enable timely recovery and resumption of its operations and ongoing fulfillment of its responsibilities as SEFs following any disruption, either through sufficient infrastructure and personnel resources of its own or through sufficient contractual arrangements with other SEFs or disaster recovery service providers.

(f) Require SEFs that the CFTC determines to be "critical financial markets" be subject to more stringent requirements.

(g) Require SEFs to notify CFTC Staff of various system security-related events, including prompt notice of electronic trading halts and material systems malfunctions, cyber-security incidents, and any activation of the SEFs' BC-DR plan.

(h) Require SEFs to provide the CFTC with timely advance notice of material planned changes to automated systems that may impact the reliability, security or adequate scalable capacity of such systems and material planned changes to programs of risk analysis and oversight.

(i) Require SEFs to provide relevant documents to the CFTC and conduct regular, periodic, objective testing and review of its automated systems.

(j) Suggest SEFs conduct testing with qualified, independent professionals.

(k) Suggest SEFs, to the extent practicable, coordinate its BC-DR plan with those other market participants upon whom it depends to provide liquidity, initiate coordinated testing of such plans and to ensure that its BC-DR plan takes into

account the BC-DR plans of relevant telecommunications, power, water and other essential service providers. [16]

At the very least, the securities markets should not have lesser standards of systemic review and testing than the derivatives markets.

Moreover, to the extent practicable, we respectfully suggest that inconsistent standards of review and testing between the securities markets and the derivatives markets should be avoided to the extent practicable. SCI Entities that may be impacted by both Reg SCI and the SEF Rules may experience confusion, conflicts, additional costs and other burdens in complying with different regimes designed to achieve the same principles.

4. Include Derivatives Markets in Industry-Wide Testing of Securities Markets.

The derivatives markets are closely linked to the securities markets. For this reason, we respectfully suggest that the Commission coordinate with the CFTC and consider industry-wide systems testing plans to include both markets.

In addition, we respectfully suggest that systems testing plans for SCI Entities internally and all SCI Entities on a market-wide basis include cross-asset scenarios.

We further respectfully suggest that the Commission consider cross-border transactions in systemic testing plans. Perhaps the Commission would consider engaging in discussions with select foreign regulators to discuss the feasibility of including certain off-shore securities and derivatives markets to test trading scenarios on a risk-based approach basis.

5. Require Mandatory Dark Pool Reporting of Aggregate Trading Volumes.

By proposing to amend Regulation ATS and lowering the volume requirements that would subject ATSs to ARP-like requirements in Reg SCI, the Commission is putting larger volume ATSs on the same level as exchanges. This recognizes the significant role ATSs serve in executing securities transactions. In the first quarter of 2013, it is estimated that over 36% of all trading took place off-exchange. [17]

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[16] 78 FR at 33598 – 33602.

[17] See Dave Michaels, "FINRA Considering Rule to Require More Dark Pool Data Disclosure," Bloomberg, May 21, 2013.

However, not all of this off-exchange volume takes place on ATSs. Dark pools for trading institutional orders are included in this off-exchange volume.[18] Unlike ATSs, which are "market centers" under Regulation NMS and subject to monthly reporting under Rule 605, dark pools are not subject to any mandatory disclosure of their trading volumes. Total trading volume in dark pools is currently not fully known. Approximately half of the dark pools voluntarily report aggregate volume data to research firms, who then use that data to estimate total trading volume in dark pools.[19] Notably, one of the largest dark pools – Credit Suisse's Crossfinder – recently stopped publishing their aggregate volume data.[20]

Given the importance of off-exchange venues in executing securities transactions as recognized in Reg SCI, as well as the value of transparency and the utility of such institutional data to retail investors, we believe uniform public disclosure of aggregate volume by dark pools in a manner that would be similar to the disclosures made by exchanges, ATSs and other "market centers" under Reg NMS to comply with Rule 605 would further enhance investor confidence in the U.S. securities markets. We understand that FINRA is contemplating rules designed to achieve this uniform public disclosure – it may require brokers to assign a separate identifier to indicate trades filled in dark pools, and it may require brokers that operate dark pools to report trading volume to FINRA.[21] We support FINRA's plans to require such disclosure of institutional trading volume at dark pools and encourage the Commission to approve FINRA's proposed rules on this matter.

Once uniform public disclosure about dark volume exists, it may be easier to evaluate whether dark pools should be SCI Entities. The Commission is not currently proposing to apply Reg SCI to broker-dealers other than those that are SCI ATSs, and dark pools are currently covered by the Market Access Rule 15c3-5 ("MAR")[22]. But, the risk controls in MAR do not require end-to-end testing of systems internally or on a market-wide basis, and MAR does not mandate reporting of systems test results or similarly detailed policies and procedures. If a dark pool meets the volume thresholds of an SCI ATS, and the Commission's goal is to "ensure that entities that have determined to participate (in a more than limited manner) in the national market system as markets that bring buyers and sellers together are

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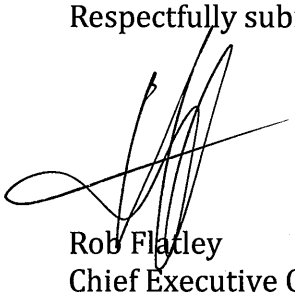
[18] 78 FR at 18088 and 18138.
[19] See id.
[20] See id.
[21] See id.
[22] Securities Exchange Act Release No. 63241 (November 3, 2010), 75 FR 69792 (November 15, 2010).

subject to the requirements of proposed Regulation SCI,"[23] then it would seem to make sense that such dark pool should be an SCI Entity.

CoreOne thanks the Commission for the opportunity to provide comments on Reg SCI. We hope our comments are helpful. We would welcome the opportunity to discuss Reg SCI further, or technology or market structure matters generally, if the Commission has questions or would like additional information. Please do not hesitate to contact Rob Flatley at 212-450-1943.

Respectfully submitted,



Rob Flatley
Chief Executive Officer and President
CoreOne Technologies LLC
40 Fulton Street, 11th Floor
New York, NY 10038

[23] 78 FR at 18094.